

Pratt & Whitney
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RDMS# 100175

**SUPPLEMENTAL
GROUNDWATER MONITORING
FOR WILLOW BROOK AND
WILLOW BROOK POND**



RDMS DocID 00100175

**PRATT & WHITNEY
EAST HARTFORD, CT**

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GROUNDWATER MONITORING
FOR WILLOW BROOK AND
WILLOW BROOK POND**

**PRATT & WHITNEY
EAST HARTFORD, CT**

January 2000

Prepared for:

**PRATT & WHITNEY
400 Main Street
East Hartford, Connecticut**

Prepared by:

**LOUREIRO ENGINEERING ASSOCIATES
100 Northwest Drive
Plainville, CT 06062**

LEA COMM No. 68VD231

400 Main Street
East Hartford, Connecticut 06108



January 14, 2000

Ms. Lori Saliby
State of Connecticut
Department of Environmental Protection
Bureau of Waste Management
79 Elm Street
Hartford, CT 06106

Mr. Richard Mason
State of Connecticut
Department of Environmental Protection
Bureau of Water Management
79 Elm Street
Hartford, CT 06106

RE: Supplemental Groundwater Monitoring
Willow Brook and Willow Brook Pond
NOV No. PCB 97-08

Dear Ms. Saliby and Mr. Mason:

We are herein submitting a report on the second round of groundwater monitoring performed in the perimeter of Willow Brook Pond. The analytical data presented in this report is supplementing the data obtained during the previous groundwater monitoring event.

This report is a follow-up to three documents previously submitted to DEP in response to the Notice of Violation (NOV) No. PCB 97-08 issued by the DEP and dated November 7, 1997. The previous reports provided information on the extent of the contamination and presented the results of the investigation of potential sources in the vicinity of the pond.

In addition, we have just received proposals from bidders in response to the Request for Proposal that has been sent out for the remedial options & remedial design study of Willow Brook and Willow Brook Pond. After we have made a decision on a consultant, we would like to meet with DEP to review some conceptual options for the remediation. It is our intent to begin remediation in the year 2000.

Should you have any questions, please do not hesitate to contact me at 860/565-0220.

Sincerely,

PRATT & WHITNEY

A handwritten signature in black ink, appearing to read "Frederick W. Johnson".
Frederick W. Johnson
Director of Environmental Programs & Administration
Group Environment, Health and Safety

Table of Contents

1. PURPOSE AND SCOPE	1-1
1.1 Previous Reports	1-1
1.1 Report Organization	1-2
2. INTRODUCTION	2-1
3. SAMPLING METHODOLOGY	3-1
3.1 Groundwater Sampling	3-1
3.2 Sample Handling	3-1
3.3 Quality Assurance/Quality Control	3-1
3.4 Documentation	3-2
4. RESULTS	4-1
5. CONCLUSIONS	5-1

TABLES

- | | |
|---------|------------------------------------------------------------|
| Table 1 | Monitoring Well Identification |
| Table 2 | Summary of Sampling and Analytical Information |
| Table 3 | Summary of Sampling and Analytical Information – (Detects) |
| Table 4 | Summary of Analytical Results |

DRAWINGS

- Drawing No. 1 Groundwater Data – Willow Brook Pond

APPENDICES

- | | |
|------------|--------------------|
| Appendix A | Field Forms |
| Appendix B | Laboratory Reports |

ACRONYMS

DEP	State of Connecticut Department of Environmental Protection
DPH	State of Connecticut Department of Public Health
EPA	Environmental Protection Agency
LEA	Loureiro Engineering Associates
MTBE	Methyl-Tert-Butyl Ether
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
PCBs	Polychlorinated Biphenyls
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
SOPs	Standard Operating Procedures
SVOCs	Semivolatile Organic Compounds
TOC	Total Organic Carbon
TPH	Total Petroleum Hydrocarbons
VCAP	Voluntary Corrective Action Program
VOCs	Volatile Organic Compounds



1. PURPOSE AND SCOPE

The purpose of this report is to present the results of the supplemental groundwater monitoring performed on February 10, 1999 in wells installed in the perimeter of Willow Brook Pond. The sampling was done to supplement the first monitoring round due to sample breakage in transit to the laboratory during the first round. The groundwater samples collected were analyzed for the parameters that due to sample breakage were not analyzed during the initial round. In addition, the samples collected were analyzed for all parameters for which detected values were observed during the initial round. The analytical parameters included metals (arsenic, barium, cadmium, chromium, lead, mercury, nickel, selenium, silver, and zinc), volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and total petroleum hydrocarbons (TPH).

1.1 Previous Reports

This report follows three previous reports submitted to the State of Connecticut Department of Environmental Protection (DEP) in response to the Notice of Violation (NOV) No. PCB 97-08 issued by the DEP and dated November 7, 1997. The first report, *Report on PCB Investigation for Willow Brook and Willow Brook Pond Sediment*, prepared by Loureiro Engineering Associates (LEA) and dated February 18, 1998, presented the results of laboratory analyses on sediment samples collected from Willow Brook and Willow Brook Pond.

The second report, *Report on Supplemental PCB Investigation for Willow Brook and Willow Brook Pond*, prepared by LEA and dated April 1998, presented the results of in-depth sampling and investigated potential source areas in the vicinity of the pond. The results identified the presence of PCB contamination in the area of the Former Oil/Water Separator between the two sections of Willow Brook Pond. Significantly lower levels of contamination were observed in the other two areas investigated (southwestern bank of Willow Brook Pond and the Former Oil Basin Area).

The third report, *Report on PCB Investigation for Willow Brook and Willow Brook Pond (Phase III)*, prepared by LEA and dated March 1999, presented the findings of the third phase of PCB investigations. During this phase, soil samples were collected from soil borings and monitoring wells which were installed in the vicinity of Willow Brook Pond. In addition, surface sediment and soil samples to depths of up to 6 feet were collected along the banks of Willow Brook within Pratt & Whitney's property and adjacent properties.

1.2 Report Organization

This report provides a brief introductory section (Section 2), discusses the groundwater monitoring activities performed, making reference to the original Work Plan as appropriate (Section 3), and summarizes the results of the monitoring in Section 4. Section 5 presents the conclusions of the supplemental round of groundwater monitoring.

Copies of the field forms for the groundwater monitoring event of February 10, 1999 are included in Appendix A. Copies of the laboratory reports are included in Appendix B.



2. INTRODUCTION

The Pratt & Whitney East Hartford site is located on a level terrace of land to the east of the Connecticut River within the urban/industrial area of greater Hartford. The site is surrounded by residential, commercial, and industrial land. Two small streams, Willow Brook and Pewterpot Brook, course through the property. The principal NPDES-permitted wastewater discharges from the manufacturing area of the site are directed to Willow Brook. Willow Brook has a total drainage area of two square miles. The brook is piped through much of the site in a concrete conduit which discharges into Willow Brook Pond just north of the principal manufacturing buildings. Process water is pumped into the plant from Willow Brook Pond and the major cooling water discharges from the manufacturing area are returned to the stream at or above the pond. The pond serves as part of the plant's water recirculation system. The water quality classification for the lower part of Willow Brook has been designated as Class B. Class B surface waters are designated for recreational use, fish and wildlife habitat, agricultural and industrial supply and other legitimate uses including navigation.

Supplemental information on Pratt & Whitney's permitted water discharges in the 400 Main Street and Colt Street, East Hartford facilities has been provided in previous reports.



3. SAMPLING METHODOLOGY

The field activities performed during this phase of investigations were limited to collection and analysis of groundwater samples from the wells installed in the perimeter of Willow Brook Pond. The groundwater monitoring event was performed on February 10, 1999. Not all wells were sampled for all parameters. The samples were collected to supplement the first monitoring round due to sample breakage in transit to the laboratory during the first round. In addition, the samples collected were analyzed for suites of analytes for which detected values were observed during the initial round.

3.1 Groundwater Sampling

Groundwater samples were collected by LEA personnel from the installed monitoring wells on February 10, 1999 to supplement the first groundwater monitoring event performed on December 4, 1998. Prior to sampling, the depth of water and total depth of each monitoring well were recorded. From this information, the total volume of water contained in each monitoring well was calculated. The water was purged initially and pH, temperature, and conductivity were recorded. Once the initial volume of water was removed, the monitoring well was purged a minimum of three times the standing water volume. Samples were collected using a peristaltic pump and dedicated polyethylene tubing. Water samples were transferred directly into labeled sample containers from the peristaltic pump. Samples collected for metals analysis were filtered in the field using a dedicated 0.45 micron in-line filter assembly. Groundwater samples collected for VOCs were collected using a dedicated disposable Teflon® bailer. The containers were sealed, placed in a cooler, and shipped to Accutest of Dayton, NJ for analysis for VOCs, SVOCs, PCBs, metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, (RCRA 8) plus nickel and zinc), and TPH.

3.2 Sample Handling

The groundwater samples were transferred directly into laboratory-supplied glassware, labeled, and placed into a cooler with ice. At the completion of the sampling event, all samples were submitted for analysis to a State of Connecticut Department of Public Health (DPH) certified laboratory (Accutest). All samples were transferred to the laboratory under full chain-of-custody control.

3.3 Quality Assurance/Quality Control

Quality Assurance/Quality Control (QA/QC) samples were collected for analysis, in addition to the groundwater samples collected. The QA/QC samples collected included an equipment blank



to determine if the decontamination procedures were adequate, a trip blank and a duplicate sample. Low levels of TPH (at 0.66 mg/l) was reported for the equipment blank. Low TPH concentrations at the same level as in the equipment blank were detected in all samples analyzed with the exception of WT-PZ-12. The low levels of TPH observed in the equipment blank are most likely attributed to laboratory contamination. The equipment blank consists of running laboratory-supplied analyte-free deionized water through a clean section of peristaltic pump hose into laboratory-supplied glassware using the peristaltic pump. No VOCs were detected in the trip blank. Relative percent differences up to 12% were observed in the duplicate samples collected from well WT-PZ-05 with the exception of bis(2-ethylhexyl)phthalate which exhibited a relative percent difference of 70% (detected at 1.2 J µg/l and 2.5 J µg/l in the duplicate). Such relative percent differences, however, are to be expected in the low concentration ranges reported. The qualifier J denotes an estimated concentration.

3.4 Documentation

Documentation activities performed under this sampling plan included the following:

- Field sampling forms,
- Daily field report and supplemental sheet,
- Daily field QA/QC checklist,
- Chain-of-custody forms.

Sample labels were printed and inspected for accuracy prior to the initiation of field activities.



4. RESULTS

The analytical results for the groundwater monitoring events performed on December 4, 1998 and on February 10, 1999 are shown on Drawing No. 1, Groundwater Data for Willow Brook / Willow Brook Pond. Information on the monitoring wells sampled is provided in Table 1. It should be noted that for consistency reasons following a sitewide well inventory the well names have changed as listed in Table 1. A summary of sampling and analytical information is provided in Table 2, while the concentrations of constituents detected in groundwater are presented in Table 3. Table 4 summarizes all analytical results for groundwater, including those constituents for which no detectable concentrations were reported.

Groundwater was sampled from eight monitoring wells along the perimeter of Willow Brook Pond in order to supplement the first monitoring event during which sample breakage occurred while in transit to the laboratory. PCBs were detected in groundwater from monitoring wells WT-PZ-09 (at 7.9 µg/l) and WT-PZ-10 (at 1.7 µg/l), confirming the results obtained during the first monitoring round. The corresponding concentrations observed during the first sampling round were 8.5 µg/l (at WT-PZ-09) and 0.73 µg/l (at WT-PZ-10). Arsenic (at 0.0041 mg/l) was detected in groundwater from monitoring well WT-PZ-10 and barium (at 0.219 mg/l) and zinc (at 0.101 mg/l) were detected in groundwater from well WT-PZ-08. These metals were not detected in these monitoring wells in the first monitoring round.

TPH was reported present in groundwater from monitoring wells WT-PZ-05 (at 0.62 mg/l and 0.70 mg/l in the duplicate), WT-PZ-06 (at 1.3 mg/l), WT-PZ-08 (at 0.65 mg/l), WT-PZ-09 (at 3.3 mg/l), and WT-PZ-10 (at 0.86 mg/l). It should be noted that TPH was reported for the equipment blank at similar concentration levels and it is most likely attributed to low-level laboratory contamination. Three SVOCs were detected in groundwater from well WT-PZ-05, acenaphthene at 3.2 µg/l and 3.3 µg/l in the duplicate, bis(2-ethylhexyl)phthalate at 1.2 µg/l and 2.5 µg/l in the duplicate, and fluorene at 0.50 µg/l and 0.48 µg/l in the duplicate. The low concentrations of bis(2-ethylhexyl)phthalate detected (1.2 µg/l and 2.5 µg/l in the duplicate) are in contrast to the relatively elevated values (up to 681 µg/l) reported for the same well during the first round. The presence of bis(2-ethylhexyl)phthalate in the groundwater sample during the first monitoring round may be due to sample contamination during the first monitoring round.

Low concentrations of VOCs were detected in groundwater from several wells sampled. Trace levels of chloroethane were detected in groundwater from well WT-PZ-05 (at 2.2 µg/l and 2.0 µg/l in the duplicate). Methyl-tert-butyl ether (MTBE) was detected in groundwater from wells WT-PZ-08 (at 2.6 µg/l) and WT-PZ-09 (at 15.4 µg/l) confirming the findings of the first

groundwater monitoring round. The respective MTBE concentrations detected in the first monitoring round were 3.1 µg/l (WT-PZ-08) and 76 µg/l (WT-PZ-09). VOCs detected in groundwater from well WT-PZ-12 included cis-1,2-dichloroethylene (at 1.1 µg/l), MTBE (at 2.4 µg/l) and trichloroethylene (at 1.6 µg/l). Trace levels of chlorinated hydrocarbons were also observed in this well during the initial monitoring round.

5. CONCLUSIONS

The second round of groundwater monitoring performed was intended to supplement the first round in which certain analyses were not performed due to sample breakage while in transit to the laboratory and to provide additional monitoring data on all detected parameters in the initial round. Overall the results of the second round of groundwater monitoring confirmed the results of the first round indicating the presence of low levels of constituents.

PCBs (in the microgram per liter range) were detected in two of the wells sampled (WT-PZ-09 and WT-PZ-10) at concentration levels in the low part per billion range. Trace metals were detected in some of the wells, inconsistent with the first monitoring round. The concentration levels of TPH observed in the groundwater samples collected were of the same order of magnitude as the TPH level observed in the equipment blank. The presence of TPH in the equipment blank is most likely attributed to low level laboratory contamination. Trace levels of SVOCs and VOCs were detected in some of the wells in generally consistent levels as in the first monitoring round with the exception of bis(2-ethylhexyl)phthalate which was detected in the second round in much lower concentrations than the first round.



TABLES

Table 1
MONITORING WELL IDENTIFICATION
Pratt Whitney, 400 Main Street, East Hartford, CT

New Well Name	Old Well Name	Screened Interval		Reference Elevation	Depth to Water	Depth of Well	Groundwater Elevation
WT-PZ-05	WT-PZ-124	8.0	17.0	36.32	9.23	16.98	27.09
WT-PZ-06	WT-PZ-129	11.0	20.0	37.12	8.20	18.95	28.92
WT-PZ-07	WT-PZ-131	7.0	17.0	37.81	8.77	16.45	29.04
WT-PZ-08	WT-PZ-134	6.0	16.0	37.21	7.56	16.19	29.65
WT-PZ-09	WT-PZ-136	7.0	17.0	37.26	8.01	15.20	29.25
WT-PZ-10	WT-PZ-139	5.0	10.0	32.52	3.64	11.35	28.88
WT-PZ-11	WT-PZ-140	3.0	12.0	33.22	5.28	9.74	27.94
WT-PZ-12	WT-PZ-142	5.0	10.0	32.66	5.00	9.67	27.66

Groundwater elevations based on measurements obtained on 2/10/99. All elevations given in feet.

Table 2
SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 1 of 1

Location ID	Sample ID	Sample Information				Analysis Information								
		Sample Date	From (ft)	To (ft)	Class	Portable GC	Volatile Organics	Semivolatile Organics	Herbicides	Pesticides	PCBs	Metals	Extraction	Miscellaneous
EQUIPMENT	1834787	2/10/99			BKE		x	x			x	x		x
TRIP BLANK	1834788	2/10/99			BKT		x							
WT-PZ-05	1834784	2/10/99	8.0	17.0	GW		x	x			x	x		x
WT-PZ-05	1834785	2/10/99	8.0	17.0	GW		x	x			x	x		x
WT-PZ-06	1834779	2/10/99	11.0	20.0	GW		x				x			x
WT-PZ-07	1834778	2/10/99	7.0	17.0	GW			x			x			
WT-PZ-08	1834781	2/10/99	6.0	16.0	GW		x				x	x		x
WT-PZ-09	1834780	2/10/99	7.0	17.0	GW		x				x			x
WT-PZ-10	1834782	2/10/99	5.0	10.0	GW						x	x		x
WT-PZ-11	1834783	2/10/99	3.0	12.0	GW			x			x	x		
WT-PZ-12	1834786	2/10/99	5.0	10.0	GW		x				x			x

Notes: 1. Legend: X - Analysed; at least one analyte over the detection limit; x - Analysed, no analytes in group over the detection limit

2. Printed on 11/09/99

Table 3
SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS)
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 1 of 2

	Location ID	EQUIPMENT	WT-PZ-05	WT-PZ-05	WT-PZ-06	WT-PZ-08	WT-PZ-09	WT-PZ-10
	Sample ID	1834787	1834784	1834785	1834779	1834781	1834780	1834782
	Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999
	Sample Time	15:15	14:30	14:30	11:50	13:25	12:55	13:40
	Sample Depth		8.0' - 17.0'	8.0' - 17.0'	11.0' - 20.0'	6.0' - 16.0'	7.0' - 17.0'	5.0' - 10.0'
	Laboratory	accu	accu	accu	accu	accu	accu	accu
	Lab. Number	E45488-10	E45488-7	E45488-8	E45488-2	E45488-4	E45488-3	E45488-5
Constituent	Units							
Depth of Well	FT		16.98	16.98	18.95	16.19	15.20	11.35
Depth to Water	FT		9.23	9.23	8.20	7.56	8.01	3.64
Specific Conductivity (field)	umhos		395	395	824	678	248	177.0
Water Elevation	FT		-9.23	-9.23	-8.20	-7.56	-8.01	-3.64
pH (field)	SU		6.73	6.73	6.36	5.94	5.76	6.00
Date PCBs Analyzed	-						02/16/1999	02/16/1999
Date Metals Analyzed	-						02/24/1999	02/24/1999
Date Organics Analyzed	-		02/19/1999	02/19/1999		02/19/1999	02/19/1999	
Date Physical Analyzed	-	02/16/1999	02/16/1999	02/16/1999	02/16/1999	02/16/1999	02/16/1999	02/16/1999
Date Semi-volatile Organics Analyzed	-		03/04/1999	03/04/1999				
Arsenic	mg/L							0.0041
Barium	mg/L					0.219		
Zinc	mg/L					0.101		
PCB 1248	µg/l						3.7	
PCB 1254	µg/l						4.2	1.7
Total Petroleum Hydrocarbons	mg/l	0.66	0.62	0.70	1.3	0.65	3.3	0.86
Acenaphthene	µg/l		3.2 J	3.3 J				
Bis(2-ethylhexyl)phthalate	µg/l		1.2 J	2.5 J				
Fluorene	µg/l		0.50 J	0.48 J				
Chloroethane	µg/l		2.2 J	2.0 J				
Dichloroethylene, 1,2-cis-	µg/l							
Methyl-tert-butyl Ether	µg/l					2.6 J	15.4	
Trichloroethylene	µg/l							

Notes: 1. Only Detects Shown
 2. Printed on 11/09/99

Table 3

SUMMARY OF SAMPLING AND ANALYTICAL INFORMATION (DETECTS)

Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 2 of 2

	Location ID	WT-PZ-12							
	Sample ID	1834786							
	Sample Date	02/10/1999							
	Sample Time	14:45							
	Sample Depth	5.0' - 10.0'							
	Laboratory	acclu							
	Lab. Number	E45488-9							
Constituent	Units								
Depth of Well	FT	9.67							
Depth to Water	FT	5.00							
Specific Conductivity (field)	µmhos	244							
Water Elevation	FT	-5.00							
pH (field)	SU	6.32							
Date PCBs Analyzed	-								
Date Metals Analyzed	-								
Date Organics Analyzed	-	02/22/1999							
Date Physical Analyzed	-								
Date Semi-volatile Organics Analyzed	-								
Arsenic	mg/L								
Barium	mg/L								
Zinc	mg/L								
PCB 1248	µg/l								
PCB 1254	µg/l								
Total Petroleum Hydrocarbons	µg/l								
Acenaphthene	µg/l								
Bis(2-ethylhexyl)phthalate	µg/l								
Fluorene	µg/l								
Chloroethane	µg/l								
Dichloroethylene,1,2-cis-	µg/l	1.1							
Methyl-tert-butyl Ether	µg/l	2.4							
Trichloroethylene	µg/l	1.6							

Notes: 1. Only Detects Shown
 2. Printed on 11/09/99

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Table 4
SUMMARY OF ANALYTICAL RESULTS
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 1 of 16

	Location ID	EQUIPMENT	TRIP BLANK	WT-PZ-05	WT-PZ-05	WT-PZ-06	WT-PZ-07	WT-PZ-08
	Sample ID	1834787	1834788	1834784	1834785	1834779	1834778	1834781
	Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999
	Sample Time	15:15	16:45	14:30	14:30	11:50	11:25	13:25
	Sample Depth			8.0' - 17.0'	8.0' - 17.0'	11.0' - 20.0'	7.0' - 17.0'	6.0' - 16.0'
	Laboratory	accu	accu	accu	accu	accu	accu	accu
	Lab. Number	E45488-10	E45488-11	E45488-7	E45488-8	E45488-2	E45488-1	E45488-4
Constituent	Units							
Depth of Well	FT			16.98	16.98	18.95	16.45	16.19
Depth to Water	FT			9.23	9.23	8.20	8.77	7.56
Specific Conductivity (field)	μmhos			395	395	824	307	678
Water Elevation	FT			-9.23	-9.23	-8.20	-8.77	-7.56
pH (field)	SU			6.73	6.73	6.36	6.43	5.94
Date PCBs Analyzed	-	02/17/1999		02/17/1999	02/17/1999	02/16/1999	02/16/1999	02/16/1999
Date Metals Analyzed	-	02/24/1999		02/24/1999	02/24/1999			02/24/1999
Date Organics Analyzed	-	02/22/1999	02/19/1999	02/19/1999	02/19/1999	02/19/1999		02/19/1999
Date Physical Analyzed	-	02/16/1999		02/16/1999	02/16/1999	02/16/1999		02/16/1999
Date Semi-volatile Organics Analyzed	-	03/05/1999		03/04/1999	03/04/1999		03/04/1999	
Diallate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dinoseb	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Arsenic	mg/l	<0.0040 U		<0.0040 U	<0.0040 U			<0.0040 U
Barium	mg/l	<0.200 U		<0.200 U	<0.200 U			0.219
Cadmium	mg/l	<0.0040 U		<0.0040 U	<0.0040 U			<0.0040 U
Chromium (Total)	mg/l	<0.010 U		<0.010 U	<0.010 U			<0.010 U
Lead	mg/l	<0.0030 U		<0.0030 U	<0.0030 U			<0.0030 U
Mercury	mg/l	<0.00020 U		<0.00020 U	<0.00020 U			<0.00020 U
Nickel	mg/l	<0.040 U		<0.040 U	<0.040 U			<0.040 U
Selenium	mg/l	<0.0050 U		<0.0050 U	<0.0050 U			<0.0050 U
Silver	mg/l	<0.010 U		<0.010 U	<0.010 U			<0.010 U
Zinc	mg/l	<0.020 U		<0.020 U	<0.020 U			0.101
PCB 1016	µg/l	<0.50 U		<0.50 U	<0.50 U	<0.55 U	<0.55 U	<0.50 U
PCB 1221	µg/l	<0.50 U		<0.50 U	<0.50 U	<0.55 U	<0.55 U	<0.50 U
PCB 1232	µg/l	<0.50 U		<0.50 U	<0.50 U	<0.55 U	<0.55 U	<0.50 U
PCB 1242	µg/l	<0.50 U		<0.50 U	<0.50 U	<0.55 U	<0.55 U	<0.50 U
PCB 1248	µg/l	<0.50 U		<0.50 U	<0.50 U	<0.55 U	<0.55 U	<0.50 U
PCB 1254	µg/l	<0.50 U		<0.50 U	<0.50 U	<0.55 U	<0.55 U	<0.50 U

Notes: 1. Printed on 11/09/99



Table 4
SUMMARY OF ANALYTICAL RESULTS
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 2 of 16

	Location ID	EQUIPMENT	TRIP BLANK	WT-PZ-05	WT-PZ-05	WT-PZ-06	WT-PZ-07	WT-PZ-08
	Sample ID	1834787	1834788	1834784	1834785	1834779	1834778	1834781
	Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999
	Sample Time	15:15	16:45	14:30	14:30	11:50	11:25	13:25
	Sample Depth			8.0' - 17.0'	8.0' - 17.0'	11.0' - 20.0'	7.0' - 17.0'	6.0' - 16.0'
	Laboratory	accu	accu	accu	accu	accu	accu	accu
	Lab. Number	E45488-10	E45488-11	E45488-7	E45488-8	E45488-2	E45488-1	E45488-4
Constituent	Units							
PCB 1260	µg/l	<0.50 U		<0.50 U	<0.50 U	<0.55 U	<0.55 U	<0.50 U
Acetylaminofluorene,2-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Aramite	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U R	
Dibromo-3-chloropropane, 1,2-	µg/l	<10 U	<10 U	<10 U	<10 U	<10 U		<10 U
Dimethoate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Disulfoton	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Famphur	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U R	
Hexachlorobenzene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Hexachlorocyclopentadiene	µg/l	<21 U		<21 U	<21 U		<21 U	
Methyl Parathion	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Parathion	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Phorate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Tetraethyl Dithiopyrophosphate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Thionazin	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Total Petroleum Hydrocarbons	mg/l	0.66		0.62	0.70	1.3		0.65
Acenaphthene	µg/l	<5.2 U		3.2 J	3.3 J		<5.2 U	
Acenaphthylene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Acetophenone	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Aminobiphenyl,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Aniline	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Anthracene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Benzo[a]anthracene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Benzo[a]pyrene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Benzo[b]fluoranthene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Benzo[ghi]perylene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Benzo[k]fluoranthene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Benzyl Alcohol	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Bis(2-chloroethoxy)methane	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	

Notes: 1. Printed on 11/09/99

Table 4
SUMMARY OF ANALYTICAL RESULTS
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 3 of 16

	Location ID	EQUIPMENT	TRIP BLANK	WT-PZ-05	WT-PZ-05	WT-PZ-06	WT-PZ-07	WT-PZ-08
	Sample ID	1834787	1834788	1834784	1834785	1834779	1834778	1834781
	Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999
	Sample Time	15:15	16:45	14:30	14:30	11:50	11:25	13:25
	Sample Depth			8.0' - 17.0'	8.0' - 17.0'	11.0' - 20.0'	7.0' - 17.0'	6.0' - 16.0'
	Laboratory	accu	accu	accu	accu	accu	accu	accu
	Lab. Number	E45488-10	E45488-11	E45488-7	E45488-8	E45488-2	E45488-1	E45488-4
Constituent	Units							
Bis(2-chloroethyl)ether	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Bis(2-chloroisopropyl)ether	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Bis(2-ethylhexyl)phthalate	µg/l	<5.2 U		1.2 J	2.5 J		<5.2 U	
Bromophenyl Phenyl Ether,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Butyl Benzyl Phthalate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Carbazole	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U R	
Chloro-m-cresol,p-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Chloroaniline,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Chloronaphthalene,2-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Chlorophenol,2-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Chlorophenyl Phenyl Ether,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Chrysene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Cresol,2-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Cresols	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Di-n-butyl Phthalate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Di-n-octyl Phthalate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dibenzo[a,h]anthracene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dibenzofuran	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dichloro-2-butylene,1,4-trans-	µg/l	<5.0 U	5.0 U	<5.0 U	<5.0 U	5.0 U	<5.0 U	
Dichlorobenzidine,3,3'-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dichlorophenol,2,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dichlorophenol,2,6-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Diethyl Phthalate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dimethyl Phthalate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dimethylaminoazobenzene,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dimethylbenzidine,3,3'-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U R	
Dimethylbenzo[a]anthracene,7,12-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dimethylphenethylamine,alpha,alpha-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	

Notes: 1. Printed on 11/09/99

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Table 4
SUMMARY OF ANALYTICAL RESULTS
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 4 of 16

	Location ID	EQUIPMENT	TRIP BLANK	WT-PZ-05	WT-PZ-05	WT-PZ-06	WT-PZ-07	WT-PZ-08
	Sample ID	1834787	1834788	1834784	1834785	1834779	1834778	1834781
	Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999
	Sample Time	15:15	16:45	14:30	14:30	11:50	11:25	13:25
	Sample Depth			8.0' - 17.0'	8.0' - 17.0'	11.0' - 20.0'	7.0' - 17.0'	6.0' - 16.0'
	Laboratory	accu	accu	accu	accu	accu	accu	accu
	Lab. Number	E45488-10	E45488-11	E45488-7	E45488-8	E45488-2	E45488-1	E45488-4
Constituent	Units							
Dimethylphenol,2,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dinitro-o-cresol,4,6-	µg/l	<21 U		<21 U	<21 U		<21 U	
Dinitrobenzene,1,3-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dinitrophenol,2,4-	µg/l	<21 U		<21 U	<21 U		<21 U	
Dinitrotoluene,2,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dinitrotoluene,2,6-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Diphenylamine	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Ethylmethanesulfonate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Fluoranthene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Fluorene	µg/l	<5.2 U		0.50 J	0.48 J		<5.2 U	
Hexachlorobutadiene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Hexachloroethane	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Hexachlorophene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U R	
Hexachloropropylene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Indeno(1,2,3-cd)pyrene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Isophorone	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Isoasafrole	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Methapyrilene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Methyl Methanesulfonate	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Methylcholanthrene,3-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Methylnaphthalene,2-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Naphthalene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Naphthoquinone,1,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Naphthylamine,alpha-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Naphthylamine,beta-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitro-o-toluidine,5-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitroaniline,2-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitroaniline,3-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	

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Table 4

SUMMARY OF ANALYTICAL RESULTS

Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 5 of 16

	Location ID	EQUIPMENT	TRIP BLANK	WT-PZ-05	WT-PZ-05	WT-PZ-06	WT-PZ-07	WT-PZ-08
	Sample ID		1834787	1834788	1834784	1834785	1834779	1834778
	Sample Date		02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999
	Sample Time		15:15	16:45	14:30	14:30	11:50	11:25
	Sample Depth				8.0' - 17.0'	8.0' - 17.0'	11.0' - 20.0'	7.0' - 17.0'
	Laboratory		accu	accu	accu	accu	accu	accu
	Lab. Number		E45488-10	E45488-11	E45488-7	E45488-8	E45488-2	E45488-1
Constituent	Units							
Nitroaniline,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitrobenzene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitrophenol,2-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitrophenol,4-	µg/l	<21 U		<21 U	<21 U		<21 U	
Nitroquinoline-1-oxide,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitroso-di-n-butylamine,n-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitroso-n-propylamine,n-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitrosodiethylamine,n-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitrosodimethylamine,n-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitrosodiphenylamine,n-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U J	
Nitrosomethylethylamine,n-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitrosomorpholine,n-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitrosopiperidine,n-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Nitrosopyrrolidine,n-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Pentachlorophenol	µg/l	<21 U		<21 U	<21 U		<21 U	
Phenacetin	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Phenanthrene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Phenol	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Phenylenediamine,1,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Picoline,2-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Pronamide	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Pyrene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Pyridine	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Safrole	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Tetrachlorobenzene,1,2,4,5-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Tetrachlorophenol,2,3,4,6-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Toluidine,o-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U R	
Trichlorophenol,2,4,5-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	

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Table 4
SUMMARY OF ANALYTICAL RESULTS

Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 6 of 16

	Location ID	EQUIPMENT	TRIP BLANK	WT-PZ-05	WT-PZ-05	WT-PZ-06	WT-PZ-07	WT-PZ-08
	Sample ID	1834787	1834788	1834784	1834785	1834779	1834778	1834781
	Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999
	Sample Time	15:15	16:45	14:30	14:30	11:50	11:25	13:25
	Sample Depth			8.0' - 17.0'	8.0' - 17.0'	11.0' - 20.0'	7.0' - 17.0'	6.0' - 16.0'
	Laboratory	accu	accu	accu	accu	accu	accu	accu
	Lab. Number	E45488-10	E45488-11	E45488-7	E45488-8	E45488-2	E45488-1	E45488-4
Constituent	Units							
Trichlorophenol,2,4,6-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Triethyl Phosphorothioate,o,o,o-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Trinitrobenzene,1,3,5-	µg/l	5.2 U		<5.2 U	<5.2 U		<5.2 U	
Acetone	µg/l	<5.0 U	5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Acetonitrile	µg/l	<100 U	<100 U	<100 U	<100 U	<100 U R		<100 U R
Acrolin	µg/l	<50 U	<50 U	<50 U	<50 U	<50 U R		<50 U R
Acrylonitrile	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U R		<5.0 U R
Allyl Chloride	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Benzene	µg/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U		<1.0 U
Bromoform	µg/l	<4.0 U	<4.0 U	<4.0 U	<4.0 U	<4.0 U		<4.0 U
Carbon Disulfide	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Carbon Tetrachloride	µg/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U		<1.0 U
Chlorobenzene	µg/l	<4.0 U	<4.0 U	<4.0 U	<4.0 U	<4.0 U		<4.0 U
Chlorodibromomethane	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Chloroethane	µg/l	<5.0 U	<5.0 U	2.2 J	2.0 J	<5.0 U		<5.0 U
Chloroform	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Chloroprene,beta-	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Dibromomethane	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Dichlorobenzene,1,2-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dichlorobenzene,1,3-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dichlorobenzene,1,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Dichlorobromomethane	µg/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U		<1.0 U
Dichlorodifluoromethane	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Dichloroethane,1,1-	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Dichloroethane,1,2-	µg/l	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U		<2.0 U
Dichloroethylene,1,1-	µg/l	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U		<2.0 U
Dichloroethylene,1,2-cis-	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Dichloroethylene,1,2-trans-	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U

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Table 4
SUMMARY OF ANALYTICAL RESULTS
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 7 of 16

	Location ID	EQUIPMENT	TRIP BLANK	WT-PZ-05	WT-PZ-05	WT-PZ-06	WT-PZ-07	WT-PZ-08
	Sample ID	1834787	1834788	1834784	1834785	1834779	1834778	1834781
	Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999	02/10/1999
	Sample Time	15:15	16:45	14:30	14:30	11:50	11:25	13:25
	Sample Depth			8.0' - 17.0'	8.0' - 17.0'	11.0' - 20.0'	7.0' - 17.0'	6.0' - 16.0'
	Laboratory	accu	accu	accu	accu	accu	accu	accu
	Lab. Number	E45488-10	E45488-11	E45488-7	E45488-8	E45488-2	E45488-1	E45488-4
Constituent	Units							
Dichloropropane,1,2-	µg/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U		<1.0 U
Dichloropropylene,1,3-cis-	µg/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U		<1.0 U
Dichloropropylene,1,3-trans-	µg/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U		<1.0 U
Dioxane,1,4-	µg/l	<120 U	<120 U	<120 U	<120 U	<120 U R		<120 U R
Ethylbenzene	µg/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U		<1.0 U
Ethylene Dibromide	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Ethylmethacrylate	µg/l	<10 U	<10 U	<10 U	<10 U	<10 U		<10 U
Hexanone,2-	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Iodomethane	µg/l	<25 U	<25 U	<25 U	<25 U	<25 U		<25 U
Isobutyl Alcohol	µg/l	<50 U	<50 U	<50 U	<50 U	<50 U R		<50 U R
Methacrylonitrile	µg/l	<10 U	<10 U	<10 U	<10 U	<10 U		<10 U
Methyl Bromide	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Methyl Chloride	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Methyl Ethyl Ketone	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Methyl Methacrylate	µg/l	<10 U	<10 U	<10 U	<10 U	<10 U		<10 U
Methyl-2-pentanone,4-	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Methyl-tert-butyl Ether	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		2.6 J
Methylene Chloride	µg/l	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U		<2.0 U
Pentachlorobenzene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Pentachloroethane	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	
Pentachloronitrobenzene	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U R	
Propionitrile	µg/l	<50 U	<50 U	<50 U	<50 U	<50 U R		<50 U R
Styrene	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Tetrachloroethane,1,1,1,2-	µg/l	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U		<5.0 U
Tetrachloroethane,1,1,2,2-	µg/l	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U		<2.0 U
Tetrachloroethylene	µg/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U		<1.0 U
Toluene	µg/l	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U		<1.0 U
Trichlorobenzene,1,2,4-	µg/l	<5.2 U		<5.2 U	<5.2 U		<5.2 U	

Notes: 1. Printed on 11/09/99

Table 4
SUMMARY OF ANALYTICAL RESULTS

Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 8 of 16

Notes: | Printed on 11/09/99

Table 4
SUMMARY OF ANALYTICAL RESULTS
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 9 of 16

	Location ID	WT-PZ-09	WT-PZ-10	WT-PZ-11	WT-PZ-12			
	Sample ID	1834780	1834782	1834783	1834786			
	Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999			
	Sample Time	12:55	13:40	14:00	14:45			
	Sample Depth	7.0' - 17.0'	5.0' - 10.0'	3.0' - 12.0'	5.0' - 10.0'			
	Laboratory	accu	accu	accu	accu			
	Lab. Number	E45488-3	E45488-5	E45488-6	E45488-9			
Constituent	Units							
Depth of Well	FT	15.20	11.35	9.74	9.67			
Depth to Water	FT	8.01	3.64	5.28	5.00			
Specific Conductivity (field)	µhos	248	177.0	242	244			
Water Elevation	FT	-8.01	-3.64	-5.28	-5.00			
pH (field)	SU	5.76	6.00	5.91	6.32			
Date PCBs Analyzed	-	02/16/1999	02/16/1999	02/16/1999	02/17/1999			
Date Metals Analyzed	-		02/24/1999	02/24/1999				
Date Organics Analyzed	-	02/19/1999			02/22/1999			
Date Physical Analyzed	-	02/16/1999	02/16/1999		02/16/1999			
Date Semi-volatile Organics Analyzed	-			03/04/1999				
Diallate	µg/l			<5.1 U				
Dinoseb	µg/l			<5.1 U				
Arsenic	mg/l		0.0041	<0.0040 U				
Barium	mg/l		0.200 U	<0.200 U				
Cadmium	mg/l		0.0040 U	<0.0040 U				
Chromium (Total)	mg/l		0.010 U	<0.010 U				
Lead	mg/l		0.0030 U	<0.0030 U				
Mercury	mg/l		0.00020 U	<0.00020 U				
Nickel	mg/l		0.040 U	<0.040 U				
Selenium	mg/l		0.0050 U	<0.0050 U				
Silver	mg/l		0.010 U	<0.010 U				
Zinc	mg/l		0.020 U	<0.020 U				
PCB 1016	µg/l	0.50 U	0.50 U	<0.50 U	0.50 U			
PCB 1221	µg/l	0.50 U	0.50 U	<0.50 U	0.50 U			
PCB 1232	µg/l	0.50 U	0.50 U	<0.50 U	0.50 U			
PCB 1242	µg/l	0.50 U	0.50 U	<0.50 U	0.50 U			
PCB 1248	µg/l	3.7	<0.50 U	<0.50 U	<0.50 U			
PCB 1254	µg/l	4.2	1.7	<0.50 U	<0.50 U			

Notes: 1. Printed on 11/09/99

Table 4
SUMMARY OF ANALYTICAL RESULTS
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 10 of 16

	Location ID	WT-PZ-09	WT-PZ-10	WT-PZ-11	WT-PZ-12			
Constituent	Units							
PCB 1260	µg/l	<0.50 U	<0.50 U	<0.50 U	<0.50 U			
Acetylaminofluorene,2-	µg/l			<5.1 U				
Aramite	µg/l			<5.1 U				
Dibromo-3-chloropropane,1,2-	µg/l	10 U			<10 U			
Dimethoate	µg/l			<5.1 U				
Disulfoton	µg/l			<5.1 U				
Famphur	µg/l			<5.1 U				
Hexachlorobenzene	µg/l			<5.1 U				
Hexachlorocyclopentadiene	µg/l			<20 U				
Methyl Parathion	µg/l			<5.1 U				
Parathion	µg/l			<5.1 U				
Phorate	µg/l			<5.1 U				
Tetraethyl Dithiopyrophosphate	µg/l			<5.1 U				
Thionazin	µg/l			<5.1 U				
Total Petroleum Hydrocarbons	µg/l	3.3	0.86		0.50 U			
Acenaphthene	µg/l			<5.1 U				
Acenaphthylene	µg/l			<5.1 U				
Acetophenone	µg/l			<5.1 U				
Aminobiphenyl,4-	µg/l			<5.1 U				
Aniline	µg/l			<5.1 U				
Anthracene	µg/l			<5.1 U				
Benz[a]anthracene	µg/l			<5.1 U				
Benz[a]pyrene	µg/l			<5.1 U				
Benzo[b]fluoranthene	µg/l			<5.1 U				
Benzo[ghi]perylene	µg/l			<5.1 U				
Benzo[k]fluoranthene	µg/l			<5.1 U				
Benzyl Alcohol	µg/l			<5.1 U				
Bis(2-chloroethoxy)methane	µg/l			<5.1 U				

Notes: 1. Printed on 11/09/99



Table 4
SUMMARY OF ANALYTICAL RESULTS
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 11 of 16

	Location ID	WT-PZ-09	WT-PZ-10	WT-PZ-11	WT-PZ-12			
Sample ID	1834780	1834782	1834783	1834786				
Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999				
Sample Time	12:55	13:40	14:00	14:45				
Sample Depth	7.0' - 17.0'	5.0' - 10.0'	3.0' - 12.0'	5.0' - 10.0'				
Laboratory	aceu	aceu	aceu	aceu				
Lab. Number	E45488-3	E45488-5	E45488-6	E45488-9				
Constituent	Units							
Bis(2-chloroethyl)ether	µg/l			<5.1 U				
Bis(2-chloroisopropyl)ether	µg/l			<5.1 U				
Bis(2-ethylhexyl)phthalate	µg/l			<5.1 U				
Bromophenyl Phenyl Ether,4-	µg/l			<5.1 U				
Butyl Benzyl Phthalate	µg/l			<5.1 U				
Carbazole	µg/l			<5.1 U				
Chloro-m-cresol,p-	µg/l			<5.1 U				
Chloroaniline,4-	µg/l			<5.1 U				
Chloronaphthalene,2-	µg/l			<5.1 U				
Chlorophenol,2-	µg/l			<5.1 U				
Chlorophenyl Phenyl Ether,4-	µg/l			<5.1 U				
Chrysene	µg/l			<5.1 U				
Cresol,2-	µg/l			<5.1 U				
Cresols	µg/l			<5.1 U				
Di-n-butyl Phthalate	µg/l			<5.1 U				
Di-n-octyl Phthalate	µg/l			<5.1 U				
Dibenzof[a,h]anthracene	µg/l			<5.1 U				
Dibenzofuran	µg/l			<5.1 U				
Dichloro-2-butylene,1,4-trans-	µg/l	5.0 U			<5.1 U			
Dichlorobenzidine,3,3'	µg/l			<5.1 U				
Dichlorophenol,2,4-	µg/l			<5.1 U				
Dichlorophenol,2,6-	µg/l			<5.1 U				
Diethyl Phthalate	µg/l			<5.1 U				
Dimethyl Phthalate	µg/l			<5.1 U				
Dimethylaminoazobenzene,4-	µg/l			<5.1 U				
Dimethylbenzidine,3,3'-	µg/l			<5.1 U				
Dimethylbenzo[a]anthracene,7,12-	µg/l			<5.1 U				
Dimethylphenethylamine,alpha,alpha-	µg/l			<5.1 U				

Notes: 1. Printed on 11/09/99



SUMMARY OF ANALYTICAL RESULTS

Table 4

Part A: Willow, 400 Main Street, East Hartford, CT - Willow Brook/Wilow Brook Pond PCB Investigation

Constituent	Units	145488-3	145488-5	145488-6	145488-9	Lab. Number	Labatory	Sample Depth	Sample Time	Sample ID	Sample Date	WTW-10	WTW-11	WTW-12	WTW-13	WTW-14	Notes
Dimethylphenol,2,4-	ppm																
Dimetro-o-cresol,4,6-	ppm																
Dimetrophenone,1,3-	ppm																
Dimetrophenol,2,4-	ppm																
Dimetrophenol,2,6-	ppm																
Diphenylamine	ppm																
Fluorene	ppm																
Fluoranthene	ppm																
Hexachlorobutadiene	ppm																
Hexachloropropylene	ppm																
Isoproprene	ppm																
Laserfume	ppm																
Liquid(1,2,3-cd)pyrene	ppm																
Methylchlorofluorocarbons	ppm																
Methylchloroformate	ppm																
Methylmethane sulfonate	ppm																
Methaphytolane	ppm																
Naphthalene	ppm																
Naphthylamine,1,4-	ppm																
Naphthylamine,2-	ppm																
Naphthylamine,3-	ppm																
Nitroaniline,2-	ppm																
Nitroaniline,3-	ppm																
Nitro-o-tolidine,5-	ppm																
Naphthylamine,4-	ppm																
Naphthylamine,5-	ppm																
Naphthylamine,6-	ppm																
Naphthylamine,7-	ppm																
Naphthylamine,8-	ppm																
Naphthylamine,9-	ppm																
Naphthylamine,10-	ppm																
Naphthylamine,11-	ppm																
Naphthylamine,12-	ppm																
Naphthylamine,13-	ppm																
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Naphthylamine,15-	ppm																
Naphthylamine,16-	ppm																
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Naphthylamine,95-	ppm																
Naphthylamine,96-	ppm																
Naphthylamine,97-	ppm																
Naphthylamine,98-	ppm																
Naphthylamine,99-	ppm																

SUMMARY OF ANALYTICAL RESULTS

Table 4

Table 4

Table 4
SUMMARY OF ANALYTICAL RESULTS
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 14 of 16

	Location ID	WT-PZ-09	WT-PZ-10	WT-PZ-11	WT-PZ-12			
	Sample ID	1834780	1834782	1834783	1834786			
	Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999			
	Sample Time	12:55	13:40	14:00	14:45			
	Sample Depth	7.0' - 17.0'	5.0' - 10.0'	3.0' - 12.0'	5.0' - 10.0'			
	Laboratory	accu	accu	accu	accu			
	Lab. Number	E45488-3	E45488-5	E45488-6	E45488-9			
Constituent	Units							
Trichlorophenol,2,4,6-	µg/l			<5.1 U				
Triethyl Phosphorothioate,o,o,o-	µg/l			<5.1 U				
Trinitrobenzene,1,3,5-	µg/l			<5.1 U				
Acetone	µg/l	5.0 U			>5.0 U			
Acetonitrile	µg/l	100 U R			100 U			
Aerolein	µg/l	50 U R			50 U			
Acrylonitrile	µg/l	5.0 U R			5.0 U			
Allyl Chloride	µg/l	5.0 U			5.0 U			
Benzene	µg/l	1.0 U			1.0 U			
Bromoform	µg/l	4.0 U			4.0 U			
Carbon Disulfide	µg/l	5.0 U			5.0 U			
Carbon Tetrachloride	µg/l	1.0 U			<1.0 U			
Chlorobenzene	µg/l	4.0 U			4.0 U			
Chlorodibromomethane	µg/l	5.0 U			5.0 U			
Chloroethane	µg/l	5.0 U			5.0 U			
Chloroform	µg/l	5.0 U			5.0 U			
Chloroprene,beta-	µg/l	5.0 U			5.0 U			
Dibromomethane	µg/l	5.0 U			5.0 U			
Dichlorobenzene,1,2-	µg/l			5.1 U				
Dichlorobenzene,1,3-	µg/l			5.1 U				
Dichlorobenzene,1,4-	µg/l			5.1 U				
Dichlorobromomethane	µg/l	1.0 U			1.0 U			
Dichlorodifluoromethane	µg/l	5.0 U			5.0 U			
Dichloroethane,1,1-	µg/l	5.0 U			5.0 U			
Dichloroethane,1,2-	µg/l	2.0 U			2.0 U			
Dichloroethylene,1,1-	µg/l	2.0 U			<2.0 U			
Dichloroethylene,1,2-cis-	µg/l	5.0 U			1.1 U			
Dichloroethylene,1,2-trans-	µg/l	5.0 U			<5.0 U			

Notes: 1. Printed on 11/09/99

Table 4
SUMMARY OF ANALYTICAL RESULTS
Pratt & Whitney, 400 Main Street, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 15 of 16

	Location ID	WT-PZ-09	WT-PZ-10	WT-PZ-11	WT-PZ-12			
	Sample ID	1834780	1834782	1834783	1834786			
	Sample Date	02/10/1999	02/10/1999	02/10/1999	02/10/1999			
	Sample Time	12:55	13:40	14:00	14:45			
	Sample Depth	7.0' - 17.0'	5.0' - 10.0'	3.0' - 12.0'	5.0' - 10.0'			
	Laboratory	accu	accu	accu	accu			
	Lab. Number	E45488-3	E45488-5	E45488-6	E45488-9			
Constituent	Units							
Dichloropropene,1,2-	µg/l	<1.0 U			<1.0 U			
Dichloropropylene,1,3-cis-	µg/l	<1.0 U			<1.0 U			
Dichloropropylene,1,3-trans-	µg/l	<1.0 U			<1.0 U			
Dioxane,1,4-	µg/l	<120 U R			<120 U			
Ethylbenzene	µg/l	1.0 U			<1.0 U			
Ethylene Dibromide	µg/l	<5.0 U			<5.0 U			
Ethylmethacrylate	µg/l	<10 U			<10 U			
Hexanone,2-	µg/l	<5.0 U			<5.0 U			
Iodomethane	µg/l	25 U			<25 U			
Isobutyl Alcohol	µg/l	<50 U R			<50 U			
Methacrylonitrile	µg/l	<10 U			<10 U			
Methyl Bromide	µg/l	<5.0 U			<5.0 U			
Methyl Chloride	µg/l	<5.0 U			<5.0 U			
Methyl Ethyl Ketone	µg/l	<5.0 U			<5.0 U			
Methyl Methacrylate	µg/l	<10 U			<10 U			
Methyl-2-pentanone,4-	µg/l	<5.0 U			<5.0 U			
Methyl-tert-butyl Ether	µg/l	15.4			2.4 J			
Methylene Chloride	µg/l	2.0 U			<2.0 U			
Pentachlorobenzene	µg/l			<5.1 U				
Pentachloroethane	µg/l			<5.1 U				
Pentachloronitrobenzene	µg/l			<5.1 U				
Propionitrile	µg/l	<50 U R			<50 U			
Styrene	µg/l	<5.0 U			<5.0 U			
Tetrachloroethane,1,1,1,2-	µg/l	<5.0 U			<5.0 U			
Tetrachloroethane,1,1,2,2-	µg/l	<2.0 U			<2.0 U			
Tetrachloroethylene	µg/l	<1.0 U			<1.0 U			
Toluene	µg/l	<1.0 U			<1.0 U			
Trichlorobenzene,1,2,4-	µg/l			<5.1 U				

Notes: 1. Printed on 11/09/99



Table 4
SUMMARY OF ANALYTICAL RESULTS
eet, East Hartford, CT - Willow Brook/Willow Brook Pond PCB Investigation

Page 16 of 16

Notes: 1. Printed on 11/09/99

DRAWINGS

**US EPA New England
RCRA Document Management System
Image Target Sheet**

RDMS Document ID # 100175

Facility Name: PRATT & WHITNEY MAIN STREET

Facility ID#: CTD990672081

Phase Classification: R-9

Purpose of Target Sheet:

Oversized (in Site File) **Oversized (in Map Drawer)**

Page(s) Missing (Please Specify Below)

Privileged **Other (Provide Purpose Below)**

Description of Oversized Material, if applicable:

**DRAWING 1: GROUNDWATER DATA - WILLOW
BROOK/ WILLOW BROOK POND**

Map **Photograph** **Other (Specify Below)**

* Please Contact the EPA New England RCRA Records Center to View This Document *

APPENDIX A

Field Forms

LOUREIRO ENGINEERING ASSOCIATES, Inc.



DAILY FIELD REPORT

LEA Comm. No.: 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 1 of 13Date: 8/10/99Inspectors: Jason Miller

Inspection Time:

Non-Productive Time

Comments

- Weather _____
- Equipment Breakdown _____
- Missing Equipment _____
- Late _____
- Other _____

Weather Temperature: High: 45 Low: 35 Wind: Speed: _____ Direction: _____
 Sky Conditions: Sunny + Partly Cloudy Precipitation: _____

Site Activity

- Sampling Type GW Number 8 Number of Bottles _____ Method Purge/Pump/bulk
- Surveying
- Well Drilling Type _____ Feet _____ Well Installed? Yes No
- Observation Brief Description _____
- Construction Supervision Brief Description _____
- Other Brief Description _____

Status of Total Production

Item	Number of Samples			Sample Records		Sampling Days	
	Today	Total to Date	% Complete	Number of Forms	% Complete	To Date	Remaining
GW	8	8	100	9	100	1	-
Total							

Field Personnel Mark Budnick

Entered in MIS

James Lardie Jason Miller

Signature:

LOUREIRO ENGINEERING ASSOCIATES, Inc.



DAILY FIELD REPORT
Supplemental Sheet

LEA Comm. No.: 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 2 of 13

Date: 21/10/99

Inspectors: Jason Miller

Inspection Time:

Description of Site Activities

on site 9:30.

Lunch 12:00

Back 12:30

finished sampling 15:30

left site 15:45

other water levels

MW 09S - 9.35

MW 09I 9.39

Waste all went into Drum # 551931

Signature:

LOUREIRO ENGINEERING ASSOCIATES, Inc.



FIELD SAMPLING RECORD
MISCELLANEOUS SAMPLES

LEA Comm. No.: 68VD153.

Page 3 of 13
Date: 02/10/99

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

*Samples sent to LEA Laboratory must be accompanied by Form leacust.rpt
Groundwater Samples must be accompanied by Form fedrg1.rpt*

Field Personnel: Mark Budnick

~~James Lardie~~ Jason Miller

Signature:

fefsrs rpt

LOUREIRO ENGINEERING ASSOCIATES, Inc.

FIELD DATA RECORD
GROUNDWATER

LEA Comm. No.: 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 4 of 13

Date: 2/10/99

Start: 11:15 Sample Time: 11:25
Finish: 11:30

Monitoring Well No.: WT PZ 131

Sample Number(s): 1834778

Monitoring Well Data

Well Depth: 16.45

Reference Used: Top of RSC

Yes No

Lighter Heavier

Depth to Water: 8.77

Interface Detected? If yes, :

Height of Water Column: 7.68

Well Integrity: Yes No

Casing Secure? Yes No

Collar Intact? Yes No

Well Locked? Yes No

Other? Yes No

Casing: 0.5" (x .01) 2" (x .16)
1" (x .04) 4" (x .65)
1.5" (x .091) 6" (x 1.5)
(x)Casing Material: PVC
SS
Other

Purge Data

Gallons to be Purged: 98

Initial Volume 1 Volume 2 Volume 3 Volume 4 Final/Sample

Gallons Purged 0 .31 .63 .94

Temp (C) 12.2 12.0 12.0 12.1

pH (SU) 6.52 6.50 6.48 6.43

Specific Conductivity ($\mu\text{s}/\text{cm}$) 302 327 305 307

Sample Observations Clear Colored Cloudy Turbid Odor Sheen

Comments: Sampling, SVOCs, PCB's

Equipment/Materials

Water Level/Depth Measured by WLT

Purge Method Peristaltic Pump Sampling Method Peristaltic pump

Field Decon? Sample Filtered? Yes No X with

Comments:

Field Personnel: Mark Budnick

James Lardie Jason Miller

Signature:

LOUREIRO ENGINEERING ASSOCIATES, Inc.

FIELD DATA RECORD
GROUNDWATER

LEA Comm. No.: 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 5 of 13Date: 2/10/95Start: 11:40 Sample Time: 11:50
Finish: :Monitoring Well No.: WT P2 129Sample Number(s): 184779

Monitoring Well Data

Well Depth: 18.95Reference Used: 100 ft PUCDepth to Water: 8.20

Yes

No

Lighter

Heavier

Height of Water Column:

10.75Interface Detected?

If yes, :

Casing: 0.5" (x .01) 2" (x .16)
1" (x .041) 4" (x .65)
1.5" (x .091) 6" (x 1.5)
(x)Casing Material: PVC
SS
Other Well Integrity: Yes No Casing Secure? Collar Intact? Well Locked? Other?

Purge Data

Gallons to be Purged: 0

	Initial	Volume 1	Volume 2	Volume 3	Volume 4	Final/Sample
Gallons Purged	<u>0</u>	<u>0.1</u>	<u>.2</u>	<u>.3</u>		
Temp (C)	<u>11.7</u>	<u>12.1</u>	<u>12.4</u>	<u>12.4</u>		
pH (SU)	<u>6.20</u>	<u>6.24</u>	<u>6.29</u>	<u>6.36</u>		
Specific Conductivity ($\mu\text{s}/\text{cm}$)	<u>940</u>	<u>961</u>	<u>984</u>	<u>824</u>		

Sample Observations Clear Colored Cloudy Turbid Odor Sheen Comments: VOC's PCBs TPH

Equipment/Materials

Water Level/Depth Measured by WL1Purge Method peristaltic pumpSampling Method peristaltic pump

Field Decon?

Yes No Sample Filtered? with _____

Comments: _____

Field Personnel: Mark Budnick

James Lardie Jason Miller

LOUREIRO ENGINEERING ASSOCIATES, Inc.

FIELD DATA RECORD
GROUNDWATER

LEA Comm. No.: 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 6 of 13

Date: 02/10/99

Sample Time: 13:25

Start: 13:20

Finish: 13:46

Monitoring Well No.:

WT-PZ-134

Sample Number(s):

1834 781

Monitoring Well Data

Well Depth: 16.19

Reference Used: Top of BUC

Depth to Water: 7.56

Yes

No

Lighter

Heavier

Height of Water Column: 8.64

Interface Detected? If yes, :

Casing: 0.5" (x .01) 2" (x .16)

Casing Material: PVC

Well Integrity:

Yes

No

1" (x .041)

2" (x .091)

3" (x .15)

4" (x .65)

5" (x .91)

6" (x 1.5)

(x ____)

.35

SS

Other

Casing Secure?

X

Collar Intact?

X

Well Locked?

X

Other?

Purge Data

Gallons to be Purged: 1.06

	Initial	Volume 1	Volume 2	Volume 3	Volume 4	Final/Sample
Gallons Purged	0	.35	.71	1.06		
Temp (C)	12.0	12.5	12.0	12.3		
pH (SU)	5.77	5.95	5.97	5.94		
Specific Conductivity ($\mu\text{s}/\text{cm}$)	913	716	694	628		

Sample Observations Clear Colored Cloudy Turbid Odor Sheen

Comments: VOCs, PCBs, metals, TPH

Equipment/Materials

Water Level/Depth Measured by

WT

Purge Method first 6 inchesSampling Method Pistol Grip Pump

Field Decon?

Sample Filtered? with 45 fm

Comments: _____

Field Personnel: Mark Budnick

James Lardie Jason Miller

Signature:

LOUREIRO ENGINEERING ASSOCIATES, Inc.

LEAFIELD DATA RECORD
GROUNDWATER**LEA Comm. No.:** 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 7 of 13

Date: 2/10/99

Start: 13:35 Sample Time: 13:40
Finish: 13:45

Monitoring Well No.: WT P2 139

Sample Number(s): 1534782

Monitoring Well Data

Well Depth: 11.35

Reference Used: *JCB's PVC*

Depth to Water: 3.64

Yes No Lighter Heavier

Height of Water

Column: 7.71

Interface Detected? If yes, : Well Integrity: Yes Casing Secure? Yes Collar Intact? Yes Well Locked? Yes Other? Yes

Casing: 0.5" (x .01) 2" (x .16)
 1" (x .041) 4" (x .65)
 1.5" (x .091) 6" (x 1.5)
 _____ (x _____)

Casing Material: PVC
 SS
 Other

No Yes Yes Yes Yes

Purge Data

Gallons to be Purged: 0

	Initial	Volume 1	Volume 2	Volume 3	Volume 4	Final/Sample
Gallons Purged	0	.07	,14	,21		
Temp (C)	10.1	10.0	9.6	9.8		
pH (SU)	6.12	6.03	6.04	6.00		
Specific Conductivity ($\mu\text{s}/\text{cm}$)	159.2	237	164.5	177.0		

Sample Observations Clear Colored Cloudy Turbid Odor Sheen

Comments: PCBs metals TPH

Equipment/Materials

Water Level/Depth Measured by *WT*Purge Method *peristaltic pump*Sampling Method *peristaltic*

Field Decon?

Sample Filtered? Yes No with *45 fm*

Comments:

Field Personnel: Mark Budnick

*James Lardie**Mark Budnick*Signature: *J. M.*

LOUREIRO ENGINEERING ASSOCIATES, Inc.

FIELD DATA RECORD
GROUNDWATER

LEA Comm. No.: 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 8 of 13

Date: 21 10 98

Start: 12:45 Sample Time: 12:55
Finish: 13:05

Monitoring Well No.: WT PZ 136

Sample Number(s): 18 34 780

Monitoring Well Data

Well Depth: 15.20

Reference Used: Top to PVC

Depth to Water: 8.01

Yes

No

Lighter

Heavier

Height of Water Column: 7.19

Interface Detected?

If yes, :

Casing: 0.5" (x .01) 2" (x .16)

Casing Material: PVC

Well Integrity:

Casing Secure?

Yes

No

1" (x .041) 4" (x .65)

SS

Other

Collar Intact?

1.5" (x .091) 6" (x 1.5)

Well Locked?

(x .29)

Other?

Purge Data

Gallons to be Purged: 88

Initial Volume 1 Volume 2 Volume 3 Volume 4 Final/Sample

Gallons Purged 0 .29 .59 .88

Temp (C) 12.6 12.4 12.5 12.6

pH (SU) 5.83 5.80 5.77 5.76

Specific Conductivity ($\mu\text{s}/\text{cm}$) 308 273 254 248Sample Observations Clear Colored Cloudy Turbid Odor Sheen

Comments: VOC's PCB's TPH

Equipment/Materials

Water Level/Depth Measured by WHI

Purge Method peristaltic pump

Sampling Method peristaltic pump

Field Decon?

Yes No

Sample Filtered? with

Comments:

Field Personnel: Mark Budnick

James Lardie Jason Miller

LOUREIRO ENGINEERING ASSOCIATES, Inc.

FIELD DATA RECORD
GROUNDWATER

LEA Comm. No.: 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 9 of 13
Date: 02/10/99Start: 13:50 Sample Time: 14:00
Finish: 14:10

Monitoring Well No.: WT PZ 140

Sample Number(s):

1834783

Monitoring Well Data

Well Depth: 9.74Reference Used: Top of PVC CasingDepth to Water: 5.28Yes No Lighter Heavier

Height of Water Column:

4.46Interface Detected?

If yes, :

Casing: 0.5" (x .01) 2" (x .16) Casing Material: PVC 1.5" (x .041) 4" (x .65) SS 1.5" (x .091) 6" (x 1.5) Other Well Integrity: Yes No Casing Secure? Collar Intact? Well Locked? Other? 18

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Purge Data

Gallons to be Purged: 0.54

Initial Volume 1 Volume 2 Volume 3 Volume 4 Final/Sample

Gallons Purged

0 .18 .36 .54

Temp (C)

11.1 10.3 9.5 9.3

pH (SU)

6.02 5.99 6.00 5.91Specific Conductivity ($\mu\text{s/cm}$)227 219 229 242Sample Observations Clear

R/O/Raw

Colored Cloudy Turbid Odor Sheen Comments: Succ's PCB's metals

Equipment Materials

Water Level/Depth Measured by WLPurge Method Piostatic PumpSampling Method Per. PumpField Decon? NOYes No Sample Filtered? X with 0.45mm screen

Comments: _____

Field Personnel: Mark Budnick

James Lardie Jason MillerSignature: Mark J. Lardie

LOUREIRO ENGINEERING ASSOCIATES, Inc.


**FIELD DATA RECORD
GROUNDWATER**
LEA Comm. No.: 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 10 of 13Date: 2/10/99Start: 14:20
Finish: 14:45Sample Time: 14:30Monitoring Well No.: WT-P2 1a4Sample Number(s): 1834784 1834785**Monitoring Well Data**

Well Depth:	<u>16.98</u>
Depth to Water:	<u>9.23</u>
Height of Water Column:	<u>7.75</u>
Casing: 0.5" (x .01)	<u>2" (x .16)</u>
1" (x .041)	<u>4" (x .65)</u>
1.5" (x .091)	<u>6" (x 1.5)</u>
(x ____)	<u>.07</u>

Reference Used: Fopos PK
 Yes No Lighter Heavier
 Interface Detected? If yes, :

Casing Material: PVC
 SS Other

Well Integrity: <input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Casing Secure? <input checked="" type="checkbox"/>	<input type="checkbox"/>
Collar Intact? <input checked="" type="checkbox"/>	<input type="checkbox"/>
Well Locked? <input checked="" type="checkbox"/>	<input type="checkbox"/>
Other? <input type="checkbox"/>	<input type="checkbox"/>

Purge DataGallons to be Purged: .23

	Initial	Volume 1	Volume 2	Volume 3	Volume 4	Final/Sample
--	---------	----------	----------	----------	----------	--------------

Gallons Purged	<u>0</u>	<u>.07</u>	<u>.14</u>	<u>.23</u>		
Temp (C)	<u>13.3</u>	<u>13.2</u>	<u>13.4</u>	<u>13.5</u>		
pH (SU)	<u>6.74</u>	<u>6.75</u>	<u>6.75</u>	<u>6.73</u>		
Specific Conductivity ($\mu\text{s}/\text{cm}$)	<u>403.4</u>	<u>402</u>	<u>401</u>	<u>395</u>		

Sample Observations Clear Colored Cloudy Turbid Odor Sheen

Comments: fragile VOC's, SVOC's, PCB's metals, TPH**Equipment Materials**Water Level/Depth Measured by LWLPurge Method Peristaltic PumpSampling Method Peristaltic Pump

Field Decon?

Sampling Method Yes NoSample Filtered? with .45 μm

Comments: _____

Field Personnel: Mark Budnick

James Lardie Jason MillerSignature: Z. J. Miller

LOUREIRO ENGINEERING ASSOCIATES, Inc.

FIELD DATA RECORD
GROUNDWATER

LEA Comm. No.: 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 11 of 13

Date: 2/10/99

Start: 14:25 Sample Time: 14:45
Finish: 14:55

Monitoring Well No.: WT PZ 142

Sample Number(s): 1834796

Monitoring Well Data

Well Depth: 9.67

Reference Used: Topos PVC

Depth to Water: 5.00

Yes Lighter Heavier

Height of Water Column: 4.67

Interface Detected? If yes, :

Casing: 0.5" (x .01) 2" (x .16)

Casing Material: PVC

1" (x .041) 4" (x .65)

SS

1.5" (x .091) 6" (x 1.5)

Other

.19

Well Integrity: Yes Casing Secure? Collar Intact? Well Locked? Other? No

Purge Data

Gallons to be Purged: .57

	Initial	Volume 1	Volume 2	Volume 3	Volume 4	Final/Sample
--	---------	----------	----------	----------	----------	--------------

Gallons Purged

0	.19	.38	.57		
---	-----	-----	-----	--	--

Temp (C)

10.8	11.0	11.0	10.9		
------	------	------	------	--	--

pH (SU)

6.41	6.40	6.37	6.32		
------	------	------	------	--	--

Specific Conductivity ($\mu\text{s cm}^{-1}$)

240	248	243	244		
-----	-----	-----	-----	--	--

Sample Observations

Clear <input type="checkbox"/>	Colored <input type="checkbox"/>	Cloudy <input checked="" type="checkbox"/>	Turbid <input type="checkbox"/>	Odor <input type="checkbox"/>	Sheen <input type="checkbox"/>
--------------------------------	----------------------------------	--------------------------------------------	---------------------------------	-------------------------------	--------------------------------

SIGHTLY

Comments: VOCs PCBs TPH

Equipment/Materials

Water Level/Depth Measured by WL

Purge Method Peristaltic Pump

Sampling Method Per. Pump

Field Decon? No

Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
------------------------------	----------------------------------------

Sample Filtered? with ~~150 ml filter~~

Comments:

Field Personnel: Mark Budnick

James Lardie Jason Miller

Signature:

LEA Comm. No.: 68VD153.

Page 12 of 13
Date: 2/10/99Project: unknown
Location: P&W East Hartford
Client: Pratt & Whitney East Hartford

Field Instrumentation Calibration Data

Instrument	Calibration Information		
pH/Conductivity Meter ORION MODEL 720A Instrument Type/ID#	<input checked="" type="checkbox"/> pH <input checked="" type="checkbox"/> Temperature <input type="checkbox"/> Conductivity	Temp. Comp. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Buffers Used/Meter Value pH 4 <u>4.00</u> pH 7 <u>7.00</u> pH 10 _____
Comments:			Conductivity Readings Meter Value Dry _____
Comments:			Standard Value _____
Meter Value _____			Meter Value _____

Instrument	Temp. Comp.	Buffers Used/Meter Value	Conductivity Readings
pH/Conductivity Meter COLT PASMAZ PFS-100 Instrument Type/ID#	<input checked="" type="checkbox"/> pH <input checked="" type="checkbox"/> Temperature <input checked="" type="checkbox"/> Conductivity	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Meter Value Dry <u>4.00</u>
Comments:		pH 4 pH 7 pH 10	Standard Value <u>7.00</u>
Comments:			Meter Value <u>10.450</u>

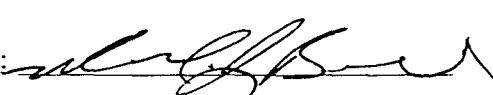
PID/FID Meter	<input type="checkbox"/> PID (VOC Analyzer)	<input type="checkbox"/> Zero w/ Background	Span Gas Value
Instrument Type/ID#	<input type="checkbox"/> FID (VOC Analyzer)	<input type="checkbox"/> Zero w/ Air	Meter Value
Comments:			

Analytical Balance	Calibration Mass	Instrument Value
Instrument Type/ID#		
Comments:		

Other	Instrument Type/ID#	Calibration Description:
Comments:		

Fluids/Materials Record	Decon: Non-Phosphate Soap	Lot No:	Lot No:
Water: Type: _____	Source: _____	>20% Methanol _____	20% Nitric _____ Other _____

Field Personnel:	Mark Budnick
	J. Lardie T. Miller

Signature: 

LOUREIRO ENGINEERING ASSOCIATES, P.C.



FIELD QUALITY REVIEW
Checklist

LEA Comm. No.: 68VD153.

Project: unknown

Location: P&W East Hartford

Client: Pratt & Whitney East Hartford

Page 13 of 13
Date: 2/10/99

	Yes	No	Corrective Action Taken/Comment:
Sample Labels Complete?	✓		
Sample Seals Used?		✓	
Field Log Book Complete?		✓	
All Planned Samples Obtained?	✓		
All Chain of Custody Forms Complete?	✓		
Monitoring Well Physical Data Forms Complete?	✓		
Field Sample Record Forms Complete?	✓		
Daily Field Report Form Complete?	✓		
Field Instrument & Quality Assurance Record Complete?	✓		
Field Data Record - Groundwater From Complete	✓		
All Field Generated QA/QC Samples Collected?	✓		
Final Site Walkover Complete?	✓		
Field Quality Review Checklist Complete?	✓		

Comments

Field Personnel: Mark Budnick

James Lardic — Jason Miller

Signature:



CHAIN OF CUSTODY

FRESH PONDS CORPORATE VILLAGE, BUILDING B
2235 ROUTE 130, DAYTON, NJ 08810
732-329-0200 FAX: 732-329-3499/3480

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES		
Pratt + Whitney NAME 900 Main St ADDRESS East Hartford CT 06108 CITY, STATE ZIP			Willow Pond Ground Water Monitoring PROJECT NAME East Hartford CT LOCATION 68VD153 PROJECT NO.			VOCs SVOCs PCBs RCRA 8 Metals + Ni+Zn TPt			DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID		
SEND REPORT TO: PHONE #		FAX #						LAB USE ONLY			
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION		COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION			
			DATE	TIME	SAMPLED BY:			HCl	NH ₃		H ₂ SO ₄
	1834778	2/10/99	11:25	JHM	GW	3		X		2 1	
	1834779		11:50			5	X			3 1	1
	1834780		12:55			5	X			3 1	1
	1834781		13:20			6	X	X		3 1 1 2	
	1834782		13:40			3	X	X		1 1 1	
	1834783		14:00			4		X		2 1 1	
	1834784		14:30			8	X	X		3 2 1 1 1	
	1834785		14:30			8	X	X		3 2 1 1 1	
	1834786		14:45			5	X			3 1	1
	1834787		15:15			7	X	X		2 2 1 1 1	
	1834788	V	16:45	V	V	2	X			2	
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS					
<input checked="" type="checkbox"/> 21 DAYS STANDARD	APPROVED BY:	<input type="checkbox"/> NJ REDUCED	<input type="checkbox"/> COMMERCIAL "A"	Standard Pratt + Whitney Deliverable Data Validation Package Requested Electronic Copy Requested TASK MI 015							
<input type="checkbox"/> 14 DAYS RUSH		<input type="checkbox"/> NJ Full	<input type="checkbox"/> COMMERCIAL "B"								
<input type="checkbox"/> 7 DAYS EMERGENCY		<input type="checkbox"/> FULL CLP	<input type="checkbox"/> STATE FORMS								
<input type="checkbox"/> OTHER		<input type="checkbox"/> DISK DELIVERABLE									
21 DAY TURNAROUND HARDCOPY. EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED											

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1.	DATE TIME: 2/10/99 17:30	RECEIVED BY: 1.	RELINQUISHED BY: 2.	DATE TIME: 2.	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE	ON ICE

APPENDIX B

Laboratory Reports



Report of Analysis

Page 1 of 4

Client Sample ID: 1834778
Lab Sample ID: E45488-1
Matrix: AQ - Ground Water
Method: SW846 8270C
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M1639.D	1	03/04/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	ug/l	
87-65-0	2,6-Dichlorophenol	ND	5.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	21	ug/l	
88-85-7	Dinoseb	ND	5.2	ug/l	
95-48-7	2-Methylphenol	ND	5.2	ug/l	
	3&4-Methylphenol	ND	5.2	ug/l	
88-75-5	2-Nitrophenol	ND	5.2	ug/l	
100-02-7	4-Nitrophenol	ND	21	ug/l	
87-86-5	Pentachlorophenol	ND	21	ug/l	
108-95-2	Phenol	ND	5.2	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.2	ug/l	
53-96-3	2-Acetylaminofluorene	ND	5.2	ug/l	
92-67-1	4-Aminobiphenyl	ND	5.2	ug/l	
83-32-9	Acenaphthene	ND	5.2	ug/l	
208-96-8	Acenaphthylene	ND	5.2	ug/l	
98-86-2	Acetophenone	ND	5.2	ug/l	
62-53-3	Aniline	ND	5.2	ug/l	
120-12-7	Anthracene	ND	5.2	ug/l	
140-57-8	Aramite	ND	5.2	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	5.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.2	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.2	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.2	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	ug/l	
100-51-6	Benzyl Alcohol	ND	5.2	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	ug/l	
106-47-8	4-Chloroaniline	ND	5.2	ug/l	

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of 4

Client Sample ID: 1834778

Lab Sample ID: E45488-1

Matrix: AQ - Ground Water

Method: SW846 8270C

Project: Task MI015

Date Sampled: 02/10/99

Date Received: 02/12/99

Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M1639.D	1	03/04/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
86-74-8	Carbazole	ND	5.2	ug/l	
218-01-9	Chrysene	ND	5.2	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.2	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.2	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.2	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.2	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	ug/l	
119-93-7	3,3'-Dimethylbenzidine	ND	5.2	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthracene	ND	5.2	ug/l	
2303-16-4	Diallate	ND	5.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.2	ug/l	
132-64-9	Dibenzofuran	ND	5.2	ug/l	
60-51-5	Dimethoate	ND	5.2	ug/l	
122-39-4	Diphenylamine	ND	5.2	ug/l	
298-04-4	Disulfoton	ND	5.2	ug/l	
99-65-0	m-Dinitrobenzene	ND	5.2	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	5.2	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	ug/l	
84-66-2	Diethyl phthalate	ND	5.2	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.2	ug/l	
62-50-0	Ethyl methanesulfonate	ND	5.2	ug/l	
52-85-7	Famphur	ND	5.2	ug/l	
206-44-0	Fluoranthene	ND	5.2	ug/l	
86-73-7	Fluorene	ND	5.2	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.2	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	21	ug/l	
67-72-1	Hexachloroethane	ND	5.2	ug/l	
70-30-4	Hexachlorophene	ND	5.2	ug/l	

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 3 of 4

Client Sample ID: 1834778
Lab Sample ID: E45488-1
Matrix: AQ - Ground Water
Method: SW846 8270C
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M1639.D	1	03/04/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1888-71-7	Hexachloropropene	ND	5.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.2	ug/l	
78-59-1	Isophorone	ND	5.2	ug/l	
120-58-1	Isosafrole	ND	5.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.2	ug/l	
56-49-5	3-Methylcholanthrene	ND	5.2	ug/l	
91-80-5	Methapyrilene	ND	5.2	ug/l	
66-27-3	Methyl methanesulfonate	ND	5.2	ug/l	
298-00-0	Methyl parathion	ND	5.2	ug/l	
130-15-4	1,4-Naphthoquinone	ND	5.2	ug/l	
134-32-7	1-Naphthylamine	ND	5.2	ug/l	
91-59-8	2-Naphthylamine	ND	5.2	ug/l	
88-74-4	2-Nitroaniline	ND	5.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.2	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	5.2	ug/l	
91-20-3	Naphthalene	ND	5.2	ug/l	
98-95-3	Nitrobenzene	ND	5.2	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	5.2	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	5.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	5.2	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	ug/l	
10595-95-6	N-Nitrosomethylalkylamine	ND	5.2	ug/l	
59-89-2	N-Nitrosomorpholine	ND	5.2	ug/l	
100-75-4	N-Nitrosopiperidine	ND	5.2	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	5.2	ug/l	
126-68-1	O,O,O-Triethyl phosphorothioic acid	ND	5.2	ug/l	
109-06-8	2-Picoline	ND	5.2	ug/l	
56-38-2	Parathion	ND	5.2	ug/l	
76-01-7	Pentachloroethane	ND	5.2	ug/l	
608-93-5	Pentachlorobenzene	ND	5.2	ug/l	
82-68-8	Pentachloronitrobenzene	ND	5.2	ug/l	
62-44-2	Phenacetin	ND	5.2	ug/l	
85-01-8	Phenanthrene	ND	5.2	ug/l	

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 4 of 4

Client Sample ID: 1834778

Lab Sample ID: E45488-1

Matrix: AQ - Ground Water

Method: SW846 8270C

Project: Task MI015

Date Sampled: 02/10/99

Date Received: 02/12/99

Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M1639.D	1	03/04/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
298-02-2	Phorate	ND	5.2	ug/l	
23950-58-5	Pronamide	ND	5.2	ug/l	
129-00-0	Pyrene	ND	5.2	ug/l	
110-86-1	Pyridine	ND	5.2	ug/l	
106-50-3	p-Phenylenediamine	ND	5.2	ug/l	
94-59-7	Safrole	ND	5.2	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.2	ug/l	
297-97-2	Thionazin	ND	5.2	ug/l	
95-53-4	o-Toluidine	ND	5.2	ug/l	
99-35-4	sym-Trinitrobenzene	ND	5.2	ug/l	
3689-24-5	Tetraethyl dithiopyrophosphat	ND	5.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		21-100%
4165-62-2	Phenol-d5	21%		10-94%
118-79-6	2,4,6-Tribromophenol	79%		10-123%
4165-60-0	Nitrobenzene-d5	89%		35-114%
321-60-8	2-Fluorobiphenyl	83%		43-116%
1718-51-0	Terphenyl-d14	91%		33-141%

10

ND = Not detected

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N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID: 1834778

Lab Sample ID: E45488-1

Matrix: AQ - Ground Water

Method: SW846 8082

Project: Task MI015

Date Sampled: 02/10/99

Date Received: 02/12/99

Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD32117.D	1	02/16/99	KLS	02/15/99	OP4923	GCD1294
Run #2							

PCB List

CAS No.	Compound	Result	RDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.55	ug/l	
11104-28-2	Aroclor 1221	ND	0.55	ug/l	
11141-16-5	Aroclor 1232	ND	0.55	ug/l	
53469-21-9	Aroclor 1242	ND	0.55	ug/l	
12672-29-6	Aroclor 1248	ND	0.55	ug/l	
11097-69-1	Aroclor 1254	ND	0.55	ug/l	
11096-82-5	Aroclor 1260	ND	0.55	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		30-150%
877-09-8	Tetrachloro-m-xylene	67%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%
2051-24-3	Decachlorobiphenyl	79%		30-150%

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 2

Client Sample ID: 1834779

Lab Sample ID: E45488-2

Matrix: AQ - Ground Water

Method: SW846 8260B

Project: Task MI015

Date Sampled: 02/10/99

Date Received: 02/12/99

Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	O17050.D	1	02/19/99	GTT	n/a	n/a	VO1550

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
75-05-8	Acetonitrile	ND	100	ug/l	
107-02-8	Acrolein	ND	50	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
107-05-1	Allyl chloride	ND	5.0	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	ug/l	
74-83-9	Bromomethane	ND	5.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	4.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	5.0	ug/l	
74-87-3	Chloromethane	ND	5.0	ug/l	
126-99-8	Chloroprene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	120	ug/l	
97-63-2	Ethyl methacrylate	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
74-88-4	Iodomethane	ND	25	ug/l	
78-83-1	Isobutyl alcohol	ND	50	ug/l	
126-98-7	Methacrylonitrile	ND	10	ug/l	

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of 2

Client Sample ID:	1834779	Date Sampled:	02/10/99
Lab Sample ID:	E45488-2	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Task MI015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O17050.D	1	02/19/99	GTT	n/a	n/a	VO1550
Run #2							

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	ug/l	
80-62-6	Methyl methacrylate	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
107-12-0	Propionitrile	ND	50	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		86-118%
17060-07-0	1,2-Dichloroethane-D4	101%		76-114%
2037-26-5	Toluene-D8	109%		88-110%
460-00-4	4-Bromofluorobenzene	114%		86-115%

13

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID:	1834779	Date Sampled:	02/10/99
Lab Sample ID:	E45488-2	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD32118.D	1	02/16/99	KLS	02/15/99	OP4923	GCD1294

PCB List

CAS No.	Compound	Result	RDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.55	ug/l	
11104-28-2	Aroclor 1221	ND	0.55	ug/l	
11141-16-5	Aroclor 1232	ND	0.55	ug/l	
53469-21-9	Aroclor 1242	ND	0.55	ug/l	
12672-29-6	Aroclor 1248	ND	0.55	ug/l	
11097-69-1	Aroclor 1254	ND	0.55	ug/l	
11096-82-5	Aroclor 1260	ND	0.55	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	62%		30-150%
877-09-8	Tetrachloro-m-xylene	54%		30-150%
2051-24-3	Decachlorobiphenyl	74%		30-150%
2051-24-3	Decachlorobiphenyl	73%		30-150%

ND = Not detected

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID: 1834779
Lab Sample ID: E45488-2
Matrix: AQ - Ground Water
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

General Chemistry

Analyte	Result	RDL	Units	DF	Analyzed By	Method
Petroleum Hydrocarbons	1.3	0.50	mg/l	1	02/16/99	MKR EPA 418.1



Report of Analysis

Page 1 of 2

Client Sample ID:	1834780	Date Sampled:	02/10/99
Lab Sample ID:	E45488-3	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
	O17051.D	1	02/19/99	GTT	n/a	n/a	VO1550
Run #2							

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
75-05-8	Acetonitrile	ND	100	ug/l	
107-02-8	Acrolein	ND	50	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
107-05-1	Allyl chloride	ND	5.0	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	ug/l	
74-83-9	Bromomethane	ND	5.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	4.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	5.0	ug/l	
74-87-3	Chloromethane	ND	5.0	ug/l	
126-99-8	Chloroprene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	120	ug/l	
97-63-2	Ethyl methacrylate	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
74-88-4	Iodomethane	ND	25	ug/l	
78-83-1	Isobutyl alcohol	ND	50	ug/l	
126-98-7	Methacrylonitrile	ND	10	ug/l	

16

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of 2

Client Sample ID: 1834780
Lab Sample ID: E45488-3
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	O17051.D	1	02/19/99	GTT	n/a	n/a	VO1550

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	15.4	5.0	ug/l	
80-62-6	Methyl methacrylate	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
107-12-0	Propionitrile	ND	50	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		86-118%
17060-07-0	1,2-Dichloroethane-D4	101%		76-114%
2037-26-5	Toluene-D8	107%		88-110%
460-00-4	4-Bromofluorobenzene	114%		86-115%

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID:	1834780	Date Sampled:	02/10/99
Lab Sample ID:	E45488-3	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082		
Project:	Task MI015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD32119.D	1	02/16/99	KLS	02/15/99	OP4923	GCD1294
Run #2							

PCB List

CAS No.	Compound	Result	RDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	3.7	0.50	ug/l	
11097-69-1	Aroclor 1254	4.2	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	68%		30-150%
877-09-8	Tetrachloro-m-xylene	65%		30-150%
2051-24-3	Decachlorobiphenyl	75%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID:	1834780	Date Sampled:	02/10/99
Lab Sample ID:	E45488-3	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

General Chemistry

Analyte	Result	RDL	Units	DF	Analyzed By	Method
Petroleum Hydrocarbons	3.3	0.50	mg/l	1	02/16/99 MKR	EPA 418.1



Report of Analysis

Page 1 of 2

Client Sample ID: 1834781
Lab Sample ID: E45488-4
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	O17052.D	1	02/19/99	GTT	n/a	n/a	VO1550

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
75-05-8	Acetonitrile	ND	100	ug/l	
107-02-8	Acrolein	ND	50	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
107-05-1	Allyl chloride	ND	5.0	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	ug/l	
74-83-9	Bromomethane	ND	5.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	4.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	5.0	ug/l	
74-87-3	Chloromethane	ND	5.0	ug/l	
126-99-8	Chloroprene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	120	ug/l	
97-63-2	Ethyl methacrylate	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
74-88-4	Iodomethane	ND	25	ug/l	
78-83-1	Isobutyl alcohol	ND	50	ug/l	
126-98-7	Methacrylonitrile	ND	10	ug/l	

20

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of 2

Client Sample ID: 1834781

Lab Sample ID: E45488-4

Matrix: AQ - Ground Water

Method: SW846 8260B

Project: Task MI015

Date Sampled: 02/10/99

Date Received: 02/12/99

Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
	O17052.D	1	02/19/99	GTT	n/a	n/a	VO1550
Run #2							

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	2.6	5.0	ug/l	J
80-62-6	Methyl methacrylate	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
107-12-0	Propionitrile	ND	50	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		86-118%
17060-07-0	1,2-Dichloroethane-D4	98%		76-114%
2037-26-5	Toluene-D8	106%		88-110%
460-00-4	4-Bromofluorobenzene	115%		86-115%

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID: 1834781
Lab Sample ID: E45488-4
Matrix: AQ - Ground Water
Method: SW846 8082
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD32120.D	1	02/16/99	KLS	02/15/99	OP4923	GCD1294
Run #2							

PCB List

CAS No.	Compound	Result	RDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		30-150%
877-09-8	Tetrachloro-m-xylene	74%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID: 1834781

Lab Sample ID: E45488-4

Matrix: AQ - Ground Water

Date Sampled: 02/10/99

Date Received: 02/12/99

Percent Solids: n/a

Project: Task MI015

Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Barium	219	200	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Cadmium	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Chromium	<10	10	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Lead	<3.0	3.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Mercury	<0.20	0.20	ug/l	1	02/19/99	02/19/99 PGC	EPA 245.1
Nickel	<40	40	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Selenium	<5.0	5.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Silver	<10	10	ug/l	1	02/22/99	03/01/99 ND	EPA 200.7
Zinc	101	20	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7

**ACCUTEST.****Report of Analysis**

Page 1 of 1

Client Sample ID:	1834781	Date Sampled:	02/10/99
Lab Sample ID:	E45488-4	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

General Chemistry

Analyte	Result	RDL	Units	DF	Analyzed By	Method
Petroleum Hydrocarbons	0.65	0.50	mg/l	1	02/16/99 MKR	EPA 418.1



Report of Analysis

Page 1 of 1

Client Sample ID:	1834782	Date Sampled:	02/10/99
Lab Sample ID:	E45488-5	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082		
Project:	Task MI015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD32123.D	1	02/16/99	KLS	02/15/99	OP4923	GCD1294
Run #2							

PCB List

CAS No.	Compound	Result	RDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	ug/l	
11097-69-1	Aroclor 1254	1.7	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	51%		30-150%
877-09-8	Tetrachloro-m-xylene	52%		30-150%
2051-24-3	Decachlorobiphenyl	63%		30-150%
2051-24-3	Decachlorobiphenyl	61%		30-150%

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID: 1834782

Lab Sample ID: E45488-5

Matrix: AQ - Ground Water

Date Sampled: 02/10/99

Date Received: 02/12/99

Percent Solids: n/a

Project: Task MI015

Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	4.1	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Barium	<200	200	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Cadmium	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Chromium	<10	10	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Lead	<3.0	3.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Mercury	<0.20	0.20	ug/l	1	02/19/99	02/19/99 PGC	EPA 245.1
Nickel	<40	40	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Selenium	<5.0	5.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Silver	<10	10	ug/l	1	02/22/99	03/01/99 ND	EPA 200.7
Zinc	<20	20	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7



Report of Analysis

Page 1 of 1

Client Sample ID:	1834782	Date Sampled:	02/10/99
Lab Sample ID:	E45488-5	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

General Chemistry

Analyte	Result	RDL	Units	DF	Analyzed By	Method
Petroleum Hydrocarbons	0.86	0.50	mg/l	1	02/16/99 MKR	EPA 418.1



Report of Analysis

Page 1 of 4

Client Sample ID: 1834783

Lab Sample ID: E45488-6

Matrix: AQ - Ground Water

Method: SW846 8270C

Project: Task MI015

Date Sampled: 02/10/99

Date Received: 02/12/99

Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M1642.D	1	03/04/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.1	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
87-65-0	2,6-Dichlorophenol	ND	5.1	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	20	ug/l	
88-85-7	Dinoseb	ND	5.1	ug/l	
95-48-7	2-Methylphenol	ND	5.1	ug/l	
	3&4-Methylphenol	ND	5.1	ug/l	
88-75-5	2-Nitrophenol	ND	5.1	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	20	ug/l	
108-95-2	Phenol	ND	5.1	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.1	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.1	ug/l	
53-96-3	2-Acetylaminofluorene	ND	5.1	ug/l	
92-67-1	4-Aminobiphenyl	ND	5.1	ug/l	
83-32-9	Acenaphthene	ND	5.1	ug/l	
208-96-8	Acenaphthylene	ND	5.1	ug/l	
98-86-2	Acetophenone	ND	5.1	ug/l	
62-53-3	Aniline	ND	5.1	ug/l	
120-12-7	Anthracene	ND	5.1	ug/l	
140-57-8	Aramite	ND	5.1	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	5.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	ug/l	
100-51-6	Benzyl Alcohol	ND	5.1	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	ug/l	
106-47-8	4-Chloroaniline	ND	5.1	ug/l	

28

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of 4

Client Sample ID:	1834783	Date Sampled:	02/10/99
Lab Sample ID:	E45488-6	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C		
Project:	Task MI015		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M1642.D	1	03/04/99	WHS	02/13/99	OP4941	EM46
Run #2							

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
86-74-8	Carbazole	ND	5.1	ug/l	
218-01-9	Chrysene	ND	5.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.1	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.1	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.1	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.1	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	ug/l	
119-93-7	3,3'-Dimethylbenzidine	ND	5.1	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthracene	ND	5.1	ug/l	
2303-16-4	Diallate	ND	5.1	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.1	ug/l	
132-64-9	Dibenzofuran	ND	5.1	ug/l	
60-51-5	Dimethoate	ND	5.1	ug/l	
122-39-4	Diphenylamine	ND	5.1	ug/l	
298-04-4	Disulfoton	ND	5.1	ug/l	
99-65-0	m-Dinitrobenzene	ND	5.1	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	5.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	ug/l	
84-66-2	Diethyl phthalate	ND	5.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.1	ug/l	
62-50-0	Ethyl methanesulfonate	ND	5.1	ug/l	
52-85-7	Famphur	ND	5.1	ug/l	
206-44-0	Fluoranthene	ND	5.1	ug/l	
85-73-7	Fluorene	ND	5.1	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	20	ug/l	
67-72-1	Hexachloroethane	ND	5.1	ug/l	
70-30-4	Hexachlorophene	ND	5.1	ug/l	

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 3 of 4

Client Sample ID: 1834783
Lab Sample ID: E45488-6
Matrix: AQ - Ground Water
Method: SW846 8270C
Project: Task M1015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M1642.D	1	03/04/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1888-71-7	Hexachloropropene	ND	5.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.1	ug/l	
78-59-1	Isophorone	ND	5.1	ug/l	
120-58-1	Isosafrole	ND	5.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.1	ug/l	
56-49-5	3-Methylcholanthrene	ND	5.1	ug/l	
91-80-5	Methapyrilene	ND	5.1	ug/l	
66-27-3	Methyl methanesulfonate	ND	5.1	ug/l	
298-00-0	Methyl parathion	ND	5.1	ug/l	
130-15-4	1,4-Naphthoquinone	ND	5.1	ug/l	
134-32-7	1-Naphthylamine	ND	5.1	ug/l	
91-59-8	2-Naphthylamine	ND	5.1	ug/l	
88-74-4	2-Nitroaniline	ND	5.1	ug/l	
99-09-2	3-Nitroaniline	ND	5.1	ug/l	
100-01-6	4-Nitroaniline	ND	5.1	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	5.1	ug/l	
91-20-3	Naphthalene	ND	5.1	ug/l	
98-95-3	Nitrobenzene	ND	5.1	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	5.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	5.1	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	5.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	ug/l	
10595-95-6	N-Nitrosomethylalkylamine	ND	5.1	ug/l	
59-89-2	N-Nitrosomorpholine	ND	5.1	ug/l	
100-75-4	N-Nitrosopiperidine	ND	5.1	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	5.1	ug/l	
126-68-1	O.O.O-Triethyl phosphorothioic acid	ND	5.1	ug/l	
109-06-8	2-Picoline	ND	5.1	ug/l	
56-38-2	Parathion	ND	5.1	ug/l	
76-01-7	Pentachloroethane	ND	5.1	ug/l	
608-93-5	Pentachlorobenzene	ND	5.1	ug/l	
82-68-8	Pentachloronitrobenzene	ND	5.1	ug/l	
62-44-2	Phenacetin	ND	5.1	ug/l	
85-01-8	Phenanthrene	ND	5.1	ug/l	

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 4 of 4

Client Sample ID:	1834783	Date Sampled:	02/10/99
Lab Sample ID:	E45488-6	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M1642.D	1	03/04/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
298-02-2	Phorate	ND	5.1	ug/l	
23950-58-5	Pronamide	ND	5.1	ug/l	
129-00-0	Pyrene	ND	5.1	ug/l	
110-86-1	Pyridine	ND	5.1	ug/l	
106-50-3	p-Phenylenediamine	ND	5.1	ug/l	
94-59-7	Safrole	ND	5.1	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.1	ug/l	
297-97-2	Thionazin	ND	5.1	ug/l	
95-53-4	o-Toluidine	ND	5.1	ug/l	
99-35-4	sym-Trinitrobenzene	ND	5.1	ug/l	
3689-24-5	Tetraethyl dithiopyrophosphate	ND	5.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		21-100%
4165-62-2	Phenol-d5	22%		10-94%
118-79-6	2,4,6-Tribromophenol	80%		10-123%
4165-60-0	Nitrobenzene-d5	91%		35-114%
321-60-8	2-Fluorobiphenyl	85%		43-116%
1718-51-0	Terphenyl-d14	95%		33-141%

ND = Not detected

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E = Indicates value exceeds calibration range

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N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID:	1834783	Date Sampled:	02/10/99
Lab Sample ID:	E45488-6	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082		
Project:	Task MI015		
Run #1	File ID CD32124.D	DF 1	Analyzed 02/16/99
Run #2			By KLS
			Prep Date 02/15/99
			Prep Batch OP4923
			Analytical Batch GCD1294

PCB List

CAS No.	Compound	Result	RDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		30-150%
877-09-8	Tetrachloro-m-xylene	76%		30-150%
2051-24-3	Decachlorobiphenyl	66%		30-150%
2051-24-3	Decachlorobiphenyl	66%		30-150%

ND = Not detected

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E = Indicates value exceeds calibration range

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Report of Analysis

Page 1 of 1

Client Sample ID:	1834783	Date Sampled:	02/10/99
Lab Sample ID:	E45488-6	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Barium	<200	200	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Cadmium	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Chromium	<10	10	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Lead	<3.0	3.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Mercury	<0.20	0.20	ug/l	1	02/19/99	02/19/99 PGC	EPA 245.1
Nickel	<40	40	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Selenium	<5.0	5.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Silver	<10	10	ug/l	1	02/22/99	03/01/99 ND	EPA 200.7
Zinc	<20	20	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7



Report of Analysis

Page 1 of 2

Client Sample ID:	1834784	Date Sampled:	02/10/99
Lab Sample ID:	E45488-7	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	O17053.D	1	02/19/99	GTT	n/a	n/a	VO1550

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
75-05-8	Acetonitrile	ND	100	ug/l	
107-02-8	Acrolein	ND	50	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
107-05-1	Allyl chloride	ND	5.0	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	ug/l	
74-83-9	Bromomethane	ND	5.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	4.0	ug/l	
75-00-3	Chloroethane	2.2	5.0	ug/l	J
67-66-3	Chloroform	ND	5.0	ug/l	
74-87-3	Chloromethane	ND	5.0	ug/l	
126-99-8	Chloroprene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	120	ug/l	
97-63-2	Ethyl methacrylate	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
74-88-4	Iodomethane	ND	25	ug/l	
78-83-1	Isobutyl alcohol	ND	50	ug/l	
126-98-7	Methacrylonitrile	ND	10	ug/l	

34

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N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of 2

Client Sample ID:	1834784	Date Sampled:	02/10/99
Lab Sample ID:	E45488-7	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	O17053.D	1	02/19/99	GTT	n/a	n/a	VO1550

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	ug/l	
80-62-6	Methyl methacrylate	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
107-12-0	Propionitrile	ND	50	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	ug/l	
96-18-4	1,2,3-Trichloroproppane	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		86-118%
17060-07-0	1,2-Dichloroethane-D4	101%		76-114%
2037-26-5	Toluene-D8	109%		88-110%
460-00-4	4-Bromofluorobenzene	114%		86-115%

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Report of Analysis

Page 1 of 4

Client Sample ID: 1834784
Lab Sample ID: E45488-7
Matrix: AQ - Ground Water
Method: SW846 8270C
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M1643.D	1	03/04/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	ug/l	
87-65-0	2,6-Dichlorophenol	ND	5.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	21	ug/l	
88-85-7	Dinoseb	ND	5.2	ug/l	
95-48-7	2-Methylphenol	ND	5.2	ug/l	
	3&4-Methylphenol	ND	5.2	ug/l	
88-75-5	2-Nitrophenol	ND	5.2	ug/l	
100-02-7	4-Nitrophenol	ND	21	ug/l	
87-86-5	Pentachlorophenol	ND	21	ug/l	
108-95-2	Phenol	ND	5.2	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.2	ug/l	
53-96-3	2-Acetylaminofluorene	ND	5.2	ug/l	
92-67-1	4-Aminobiphenyl	ND	5.2	ug/l	
83-32-9	Acenaphthene	3.2	5.2	ug/l	J
208-96-8	Acenaphthylene	ND	5.2	ug/l	
98-86-2	Acetophenone	ND	5.2	ug/l	
62-53-3	Aniline	ND	5.2	ug/l	
120-12-7	Anthracene	ND	5.2	ug/l	
140-57-8	Aramite	ND	5.2	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	5.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.2	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.2	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.2	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	ug/l	
100-51-6	Benzyl Alcohol	ND	5.2	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	ug/l	
106-47-8	4-Chloroaniline	ND	5.2	ug/l	

ND = Not detected

J = Indicates an estimated value

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B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of 4

Client Sample ID:	1834784	Date Sampled:	02/10/99
Lab Sample ID:	E45488-7	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
	M1643.D	1	03/04/99	WHS	02/13/99	OP4941	EM46
Run #2							

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
86-74-8	Carbazole	ND	5.2	ug/l	
218-01-9	Chrysene	ND	5.2	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.2	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.2	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.2	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.2	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	ug/l	
119-93-7	3,3'-Dimethylbenzidine	ND	5.2	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthracene	ND	5.2	ug/l	
2303-16-4	Diallate	ND	5.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.2	ug/l	
132-64-9	Dibenzofuran	ND	5.2	ug/l	
60-51-5	Dimethoate	ND	5.2	ug/l	
122-39-4	Diphenylamine	ND	5.2	ug/l	
298-04-4	Disulfoton	ND	5.2	ug/l	
99-65-0	m-Dinitrobenzene	ND	5.2	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	5.2	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	ug/l	
84-66-2	Diethyl phthalate	ND	5.2	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	1.2	5.2	ug/l	J
62-50-0	Ethyl methanesulfonate	ND	5.2	ug/l	
52-85-7	Famphur	ND	5.2	ug/l	
206-44-0	Fluoranthene	ND	5.2	ug/l	
86-73-7	Fluorene	0.50	5.2	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.2	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.2	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	21	ug/l	
67-72-1	Hexachloroethane	ND	5.2	ug/l	
70-30-4	Hexachlorophene	ND	5.2	ug/l	

37

ND = Not detected

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RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 3 of 4

Client Sample ID: 1834784
Lab Sample ID: E45488-7
Matrix: AQ - Ground Water
Method: SW846 8270C
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By WHS	Prep Date	Prep Batch	Analytical Batch
Run #2	M1643.D	1	03/04/99		02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1888-71-7	Hexachloropropene	ND	5.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.2	ug/l	
78-59-1	Isophorone	ND	5.2	ug/l	
120-58-1	Isosafrole	ND	5.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.2	ug/l	
56-49-5	3-Methylcholanthrene	ND	5.2	ug/l	
91-80-5	Methapyrilene	ND	5.2	ug/l	
66-27-3	Methyl methanesulfonate	ND	5.2	ug/l	
298-00-0	Methyl parathion	ND	5.2	ug/l	
130-15-4	1,4-Naphthoquinone	ND	5.2	ug/l	
134-32-7	1-Naphthylamine	ND	5.2	ug/l	
91-59-8	2-Naphthylamine	ND	5.2	ug/l	
88-74-4	2-Nitroaniline	ND	5.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.2	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	5.2	ug/l	
91-20-3	Naphthalene	ND	5.2	ug/l	
98-95-3	Nitrobenzene	ND	5.2	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	5.2	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	5.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	5.2	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	ug/l	
10595-95-6	N-Nitrosomethylalkylamine	ND	5.2	ug/l	
59-89-2	N-Nitrosomorpholine	ND	5.2	ug/l	
100-75-4	N-Nitrosopiperidine	ND	5.2	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	5.2	ug/l	
126-68-1	O,O,O-Triethyl phosphorothioic acid	ND	5.2	ug/l	
109-06-8	2-Picoline	ND	5.2	ug/l	
56-38-2	Parathion	ND	5.2	ug/l	
76-01-7	Pentachloroethane	ND	5.2	ug/l	
608-93-5	Pentachlorobenzene	ND	5.2	ug/l	
82-68-8	Pentachloronitrobenzene	ND	5.2	ug/l	
62-44-2	Phenacetin	ND	5.2	ug/l	
85-01-8	Phenanthrene	ND	5.2	ug/l	

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

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E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 4 of 4

Client Sample ID: 1834784
Lab Sample ID: E45488-7
Matrix: AQ - Ground Water
Method: SW846 8270C
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M1643.D	1	03/04/99	WHS	02/13/99	OP4941	EM46
Run #2							

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
298-02-2	Phorate	ND	5.2	ug/l	
23950-58-5	Pronamide	ND	5.2	ug/l	
129-00-0	Pyrene	ND	5.2	ug/l	
110-86-1	Pyridine	ND	5.2	ug/l	
106-50-3	p-Phenylenediamine	ND	5.2	ug/l	
94-59-7	Safrole	ND	5.2	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.2	ug/l	
297-97-2	Thionazin	ND	5.2	ug/l	
95-53-4	o-Tolidine	ND	5.2	ug/l	
99-35-4	sym-Trinitrobenzene	ND	5.2	ug/l	
3689-24-5	Tetraethyl dithiopyrophosphate	ND	5.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		21-100%
4165-62-2	Phenol-d5	36%		10-94%
118-79-6	2,4,6-Tribromophenol	78%		10-123%
4165-60-0	Nitrobenzene-d5	85%		35-114%
321-60-8	2-Fluorobiphenyl	81%		43-116%
1718-51-0	Terphenyl-d14	86%		33-141%

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID:	1834784	Date Sampled:	02/10/99
Lab Sample ID:	E45488-7	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082		
Project:	Task MI015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD32125.D	1	02/17/99	KLS	02/15/99	OP4923	GCD1294
Run #2							

PCB List

CAS No.	Compound	Result	RDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		30-150%
877-09-8	Tetrachloro-m-xylene	69%		30-150%
2051-24-3	Decachlorobiphenyl	80%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%

40

ND = Not detected

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID:	1834784	Date Sampled:	02/10/99
Lab Sample ID:	E45488-7	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Barium	<200	200	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Cadmium	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Chromium	<10	10	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Lead	<3.0	3.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Mercury	<0.20	0.20	ug/l	1	02/19/99	02/19/99 PGC	EPA 245.1
Nickel	<40	40	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Selenium	<5.0	5.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Silver	<10	10	ug/l	1	02/22/99	03/01/99 ND	EPA 200.7
Zinc	<20	20	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7



Report of Analysis

Page 1 of 1

Client Sample ID:	1834784	Date Sampled:	02/10/99
Lab Sample ID:	E45488-7	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

General Chemistry

Analyte	Result	RDL	Units	DF	Analyzed By	Method
Petroleum Hydrocarbons	0.62	0.50	mg/l	1	02/16/99 MKR	EPA 418.1



Report of Analysis

Page 1 of 2

Client Sample ID: 1834785
Lab Sample ID: E45488-8
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
	O17054.D	1	02/19/99	GTT	n/a	n/a	VO1550
Run #2							

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
75-05-8	Acetonitrile	ND	100	ug/l	
107-02-8	Acrolein	ND	50	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
107-05-1	Allyl chloride	ND	5.0	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	ug/l	
74-83-9	Bromomethane	ND	5.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	4.0	ug/l	
75-00-3	Chloroethane	2.0	5.0	ug/l	J
67-66-3	Chloroform	ND	5.0	ug/l	
74-87-3	Chloromethane	ND	5.0	ug/l	
126-99-8	Chloroprene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	120	ug/l	
97-63-2	Ethyl methacrylate	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
74-88-4	Iodomethane	ND	25	ug/l	
78-83-1	Isobutyl alcohol	ND	50	ug/l	
126-98-7	Methacrylonitrile	ND	10	ug/l	

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Report of Analysis

Page 2 of 2

Client Sample ID:	1834785	Date Sampled:	02/10/99
Lab Sample ID:	E45488-8	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	O17054.D	1	02/19/99	GTT	n/a	n/a	VO1550

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	ug/l	
80-62-6	Methyl methacrylate	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
107-12-0	Propionitrile	ND	50	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromoefluoromethane	108%		86-118%
17060-07-0	1,2-Dichloroethane-D4	104%		76-114%
2037-26-5	Toluene-D8	104%		88-110%
460-00-4	4-Bromofluorobenzene	115%		86-115%

44

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Report of Analysis

Page 1 of 4

Client Sample ID: 1834785

Lab Sample ID: E45488-8

Matrix: AQ - Ground Water

Method: SW846 8270C

Project: Task MI015

Date Sampled: 02/10/99

Date Received: 02/12/99

Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M1644.D	1	03/04/99	WHS	02/13/99	OP4941	EM46
Run #2							

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	ug/l	
87-65-0	2,6-Dichlorophenol	ND	5.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	21	ug/l	
88-85-7	Dinoseb	ND	5.2	ug/l	
95-48-7	2-Methylphenol	ND	5.2	ug/l	
	3&4-Methylphenol	ND	5.2	ug/l	
88-75-5	2-Nitrophenol	ND	5.2	ug/l	
100-02-7	4-Nitrophenol	ND	21	ug/l	
87-86-5	Pentachlorophenol	ND	21	ug/l	
108-95-2	Phenol	ND	5.2	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.2	ug/l	
53-96-3	2-Acetylaminofluorene	ND	5.2	ug/l	
92-67-1	4-Aminobiphenyl	ND	5.2	ug/l	
83-32-9	Acenaphthene	3.3	5.2	ug/l	J
208-96-8	Acenaphthylene	ND	5.2	ug/l	
98-86-2	Acetophenone	ND	5.2	ug/l	
62-53-3	Aniline	ND	5.2	ug/l	
120-12-7	Anthracene	ND	5.2	ug/l	
140-57-8	Aramite	ND	5.2	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	5.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.2	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.2	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.2	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	ug/l	
100-51-6	Benzyl Alcohol	ND	5.2	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	ug/l	
106-47-8	4-Chloroaniline	ND	5.2	ug/l	

ND = Not detected

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E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



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Report of Analysis

Page 2 of 4

Client Sample ID:	1834785	Date Sampled:	02/10/99
Lab Sample ID:	E45488-8	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C		
Project:	Task MI015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M1644.D	1	03/04/99	WHS	02/13/99	OP4941	EM46
Run #2							

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
86-74-8	Carbazole	ND	5.2	ug/l	
218-01-9	Chrysene	ND	5.2	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.2	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.2	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.2	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.2	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	ug/l	
119-93-7	3,3'-Dimethylbenzidine	ND	5.2	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthracene	ND	5.2	ug/l	
2303-16-4	Diallate	ND	5.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.2	ug/l	
132-64-9	Dibenzofuran	ND	5.2	ug/l	
60-51-5	Dimethoate	ND	5.2	ug/l	
122-39-4	Diphenylamine	ND	5.2	ug/l	
298-04-4	Disulfoton	ND	5.2	ug/l	
99-65-0	m-Dinitrobenzene	ND	5.2	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	5.2	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	ug/l	
84-66-2	Diethyl phthalate	ND	5.2	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	2.5	5.2	ug/l	J
62-50-0	Ethyl methanesulfonate	ND	5.2	ug/l	
52-85-7	Famphur	ND	5.2	ug/l	
206-44-0	Fluoranthene	ND	5.2	ug/l	
86-73-7	Fluorene	0.48	5.2	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.2	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.2	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	21	ug/l	
67-72-1	Hexachloroethane	ND	5.2	ug/l	
70-30-4	Hexachlorophene	ND	5.2	ug/l	

46

ND = Not detected

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B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 3 of 4

Client Sample ID: 1834785
Lab Sample ID: E45488-8
Matrix: AQ - Ground Water
Method: SW846 8270C
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M1644.D	1	03/04/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1888-71-7	Hexachloropropene	ND	5.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.2	ug/l	
78-59-1	Isophorone	ND	5.2	ug/l	
120-58-1	Isosafrole	ND	5.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.2	ug/l	
56-49-5	3-Methylcholanthrene	ND	5.2	ug/l	
91-80-5	Methapyrilene	ND	5.2	ug/l	
66-27-3	Methyl methanesulfonate	ND	5.2	ug/l	
298-00-0	Methyl parathion	ND	5.2	ug/l	
130-15-4	1,4-Naphthoquinone	ND	5.2	ug/l	
134-32-7	1-Naphthylamine	ND	5.2	ug/l	
91-59-8	2-Naphthylamine	ND	5.2	ug/l	
88-74-4	2-Nitroaniline	ND	5.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.2	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	5.2	ug/l	
91-20-3	Naphthalene	ND	5.2	ug/l	
98-95-3	Nitrobenzene	ND	5.2	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	5.2	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	5.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	5.2	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	ug/l	
10595-95-6	N-Nitrosomethylalkylamine	ND	5.2	ug/l	
59-89-2	N-Nitrosomorpholine	ND	5.2	ug/l	
100-75-4	N-Nitrosopiperidine	ND	5.2	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	5.2	ug/l	
126-68-1	O,O,O-Triethyl phosphorothioic acid	ND	5.2	ug/l	
109-06-8	2-Picoline	ND	5.2	ug/l	
56-38-2	Parathion	ND	5.2	ug/l	
76-01-7	Pentachloroethane	ND	5.2	ug/l	
608-93-5	Pentachlorobenzene	ND	5.2	ug/l	
82-68-8	Pentachloronitrobenzene	ND	5.2	ug/l	
62-44-2	Phenacetin	ND	5.2	ug/l	
85-01-8	Phenanthrene	ND	5.2	ug/l	

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 4 of 4

Client Sample ID:	1834785	Date Sampled:	02/10/99
Lab Sample ID:	E45488-8	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M1644.D	1	03/04/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
298-02-2	Phorate	ND	5.2	ug/l	
23950-58-5	Pronamide	ND	5.2	ug/l	
129-00-0	Pyrene	ND	5.2	ug/l	
110-86-1	Pyridine	ND	5.2	ug/l	
106-50-3	p-Phenylenediamine	ND	5.2	ug/l	
94-59-7	Safrole	ND	5.2	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.2	ug/l	
297-97-2	Thionazin	ND	5.2	ug/l	
95-53-4	o-Toluidine	ND	5.2	ug/l	
99-35-4	sym-Trinitrobenzene	ND	5.2	ug/l	
3689-24-5	Tetraethyl dithiopyrophosphate	ND	5.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	33%		21-100%
4165-62-2	Phenol-d ₅	20%		10-94%
118-79-6	2,4,6-Tribromophenol	84%		10-123%
4165-60-0	Nitrobenzene-d ₅	82%		35-114%
321-60-8	2-Fluorobiphenyl	81%		43-116%
1718-51-0	Terphenyl-d ₁₄	87%		33-141%

48

ND = Not detected

RDL = Reported Detection Limit

E = Indicates value exceeds calibration range

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B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID: 1834785
Lab Sample ID: E45488-8
Matrix: AQ - Ground Water
Method: SW846 8082
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD32126.D	1	02/17/99	KLS	02/15/99	OP4923	GCD1294
Run #2							

PCB List

CAS No.	Compound	Result	RDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		30-150%
877-09-8	Tetrachloro-m-xylene	69%		30-150%
2051-24-3	Decachlorobiphenyl	82%		30-150%
2051-24-3	Decachlorobiphenyl	81%		30-150%

ND = Not detected

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RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID:	1834785	Date Sampled:	02/10/99
Lab Sample ID:	E45488-8	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Barium	<200	200	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Cadmium	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Chromium	<10	10	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Lead	<3.0	3.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Mercury	<0.20	0.20	ug/l	1	02/19/99	02/19/99 PGC	EPA 245.1
Nickel	<40	40	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Selenium	<5.0	5.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Silver	<10	10	ug/l	1	02/22/99	03/01/99 ND	EPA 200.7
Zinc	<20	20	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7



Report of Analysis

Page 1 of 1

Client Sample ID:	1834785	Date Sampled:	02/10/99
Lab Sample ID:	E45488-8	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

General Chemistry

Analyte	Result	RDL	Units	DF	Analyzed By	Method
Petroleum Hydrocarbons	0.70	0.50	mg/l	1	02/16/99 MKR	EPA 418.1



Report of Analysis

Page 1 of 2

Client Sample ID:	1834786	Date Sampled:	02/10/99
Lab Sample ID:	E45488-9	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	O17089.D	1	02/22/99	GTT	n/a	n/a	VO1550

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
75-05-8	Acetonitrile	ND	100	ug/l	
107-02-8	Acrolein	ND	50	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
107-05-1	Allyl chloride	ND	5.0	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	ug/l	
74-83-9	Bromomethane	ND	5.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	4.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	5.0	ug/l	
74-87-3	Chloromethane	ND	5.0	ug/l	
126-99-8	Chloroprene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.1	5.0	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	120	ug/l	
97-63-2	Ethyl methacrylate	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
74-88-4	Iodomethane	ND	25	ug/l	
78-83-1	Isobutyl alcohol	ND	50	ug/l	
126-98-7	Methacrylonitrile	ND	10	ug/l	

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of 2

Client Sample ID:	1834786	Date Sampled:	02/10/99
Lab Sample ID:	E45488-9	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Task MI015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O17089.D	1	02/22/99	GTT	n/a	n/a	VO1550
Run #2							

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	2.4	5.0	ug/l	J
80-62-6	Methyl methacrylate	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
107-12-0	Propionitrile	ND	50	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	ug/l	
79-01-6	Trichloroethene	1.6	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		86-118%
17060-07-0	1,2-Dichloroethane-D4	96%		76-114%
2037-26-5	Toluene-D8	100%		88-110%
460-00-4	4-Bromofluorobenzene	108%		86-115%

ND = Not detected

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RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

Client Sample ID:	1834786	Date Sampled:	02/10/99
Lab Sample ID:	E45488-9	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082		
Project:	Task M1015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD32127.D	1	02/17/99	KLS	02/15/99	OP4923	GCD1294
Run #2							

PCB List

CAS No.	Compound	Result	RDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		30-150%
877-09-8	Tetrachloro-m-xylene	76%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%
2051-24-3	Decachlorobiphenyl	75%		30-150%

ND = Not detected

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Report of Analysis

Page 1 of 1

Client Sample ID:	1834786	Date Sampled:	02/10/99
Lab Sample ID:	E45488-9	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

General Chemistry

Analyte	Result	RDL	Units	DF	Analyzed By	Method
Petroleum Hydrocarbons	<0.50	0.50	mg/l	1	02/16/99 MKR	EPA 418.1



Report of Analysis

Page 1 of 2

Client Sample ID:	1834787	Date Sampled:	02/10/99
Lab Sample ID:	E45488-10	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Task MI015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O17088.D	1	02/22/99	GTT	n/a	n/a	VO1550
Run #2							

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
75-05-8	Acetonitrile	ND	100	ug/l	
107-02-8	Acrolein	ND	50	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
107-05-1	Allyl chloride	ND	5.0	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	ug/l	
74-83-9	Bromomethane	ND	5.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	4.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	5.0	ug/l	
74-87-3	Chloromethane	ND	5.0	ug/l	
126-99-8	Chloroprene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	120	ug/l	
97-63-2	Ethyl methacrylate	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
591-78-6	1-Hexanone	ND	5.0	ug/l	
74-88-4	Iodomethane	ND	25	ug/l	
78-83-1	Isobutyl alcohol	ND	50	ug/l	
126-98-7	Methacrylonitrile	ND	10	ug/l	

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of 2

Client Sample ID: 1834787
Lab Sample ID: E45488-10
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	O17088.D	1	02/22/99	GTT	n/a	n/a	VO1550

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	ug/l	
80-62-6	Methyl methacrylate	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
107-12-0	Propionitrile	ND	50	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		86-118%
17060-07-0	1,2-Dichloroethane-D4	101%		76-114%
2037-26-5	Toluene-D8	106%		88-110%
460-00-4	4-Bromofluorobenzene	114%		86-115%

ND = Not detected

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 4

Client Sample ID: 1834787
Lab Sample ID: E45488-10
Matrix: AQ - Ground Water
Method: SW846 8270C
Project: Task MI015

Date Sampled: 02/10/99
Date Received: 02/12/99
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M1645.D	1	03/05/99	WHS	02/13/99	OP4941	EM46

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	ug/l	
87-65-0	2,6-Dichlorophenol	ND	5.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	21	ug/l	
88-85-7	Dinoseb	ND	5.2	ug/l	
95-48-7	2-Methylphenol	ND	5.2	ug/l	
	3&4-Methylphenol	ND	5.2	ug/l	
88-75-5	2-Nitrophenol	ND	5.2	ug/l	
100-02-7	4-Nitrophenol	ND	21	ug/l	
87-86-5	Pentachlorophenol	ND	21	ug/l	
108-95-2	Phenol	ND	5.2	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.2	ug/l	
53-96-3	2-Acetylaminofluorene	ND	5.2	ug/l	
92-67-1	4-Aminobiphenyl	ND	5.2	ug/l	
83-32-9	Acenaphthene	ND	5.2	ug/l	
208-96-8	Acenaphthylene	ND	5.2	ug/l	
98-86-2	Acetophenone	ND	5.2	ug/l	
62-53-3	Aniline	ND	5.2	ug/l	
120-12-7	Anthracene	ND	5.2	ug/l	
140-57-8	Aramite	ND	5.2	ug/l	
122-09-8	A,A-Dimethylphenethylamine	ND	5.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.2	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.2	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.2	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	ug/l	
100-51-6	Benzyl Alcohol	ND	5.2	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	ug/l	
106-47-8	4-Chloroaniline	ND	5.2	ug/l	

ND = Not detected

J = Indicates an estimated value

RDL = Reported Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 2 of 4

Client Sample ID:	1834787	Date Sampled:	02/10/99
Lab Sample ID:	E45488-10	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
	M1645.D	1	03/05/99	WHS	02/13/99	OP4941	EM46
Run #2							

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
86-74-8	Carbazole	ND	5.2	ug/l	
218-01-9	Chrysene	ND	5.2	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.2	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.2	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.2	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.2	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	ug/l	
119-93-7	3,3'-Dimethylbenzidine	ND	5.2	ug/l	
57-97-6	7,12-Dimethylbenz(a)anthracene	ND	5.2	ug/l	
2303-16-4	Diallate	ND	5.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.2	ug/l	
132-64-9	Dibenzofuran	ND	5.2	ug/l	
60-51-5	Dimethoate	ND	5.2	ug/l	
122-39-4	Diphenylamine	ND	5.2	ug/l	
298-04-4	Disulfoton	ND	5.2	ug/l	
99-65-0	m-Dinitrobenzene	ND	5.2	ug/l	
60-11-7	p-(Dimethylamine)azobenzene	ND	5.2	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	ug/l	
84-66-2	Diethyl phthalate	ND	5.2	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.2	ug/l	
62-50-0	Ethyl methanesulfonate	ND	5.2	ug/l	
52-85-7	Famphur	ND	5.2	ug/l	
206-44-0	Fluoranthene	ND	5.2	ug/l	
86-73-7	Fluorene	ND	5.2	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.2	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	21	ug/l	
67-72-1	Hexachloroethane	ND	5.2	ug/l	
70-30-4	Hexachlorophene	ND	5.2	ug/l	

59

ND = Not detected

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N = Indicates presumptive evidence of a compound



Report of Analysis

Page 3 of 4

Client Sample ID:	1834787	Date Sampled:	02/10/99
Lab Sample ID:	E45488-10	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C		
Project:	Task MI015		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
	M1645.D	1	03/05/99	WHS	02/13/99	OP4941	EM46
Run #2							

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1888-71-7	Hexachloropropene	ND	5.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.2	ug/l	
78-59-1	Isophorone	ND	5.2	ug/l	
120-58-1	Isosafrole	ND	5.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.2	ug/l	
56-49-5	3-Methylcholanthrene	ND	5.2	ug/l	
91-80-5	Methapyrilene	ND	5.2	ug/l	
66-27-3	Methyl methanesulfonate	ND	5.2	ug/l	
298-00-0	Methyl parathion	ND	5.2	ug/l	
130-15-4	1,4-Naphthoquinone	ND	5.2	ug/l	
134-32-7	1-Naphthylamine	ND	5.2	ug/l	
91-59-8	2-Naphthylamine	ND	5.2	ug/l	
88-74-4	2-Nitroaniline	ND	5.2	ug/l	
99-09-2	3-Nitroaniline	ND	5.2	ug/l	
100-01-6	4-Nitroaniline	ND	5.2	ug/l	
99-55-8	5-Nitro-o-toluidine	ND	5.2	ug/l	
91-20-3	Naphthalene	ND	5.2	ug/l	
98-95-3	Nitrobenzene	ND	5.2	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	ug/l	
56-57-5	4-Nitroquinoline 1-Oxide	ND	5.2	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	ug/l	
924-16-3	N-Nitrosodi-n-butylamine	ND	5.2	ug/l	
55-18-5	N-Nitrosodiethylamine	ND	5.2	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	ug/l	
10595-95-6	N-Nitrosomethylalkylamine	ND	5.2	ug/l	
59-89-2	N-Nitrosomorpholine	ND	5.2	ug/l	
100-75-4	N-Nitrosopiperidine	ND	5.2	ug/l	
930-55-2	N-Nitrosopyrrolidine	ND	5.2	ug/l	
126-68-1	O,O,O-Triethyl phosphorothioic acid	ND	5.2	ug/l	
109-06-8	2-Picoline	ND	5.2	ug/l	
56-38-2	Parathion	ND	5.2	ug/l	
76-01-7	Pentachloroethane	ND	5.2	ug/l	
608-93-5	Pentachlorobenzene	ND	5.2	ug/l	
82-68-8	Pentachloronitrobenzene	ND	5.2	ug/l	
62-44-2	Phenacetin	ND	5.2	ug/l	
85-01-8	Phenanthrene	ND	5.2	ug/l	

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E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

**ACCU**TEST.

Report of Analysis

Page 4 of 4

Client Sample ID:	1834787	Date Sampled:	02/10/99
Lab Sample ID:	E45488-10	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C		
Project:	Task MI015		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M1645.D	1	03/05/99	WHS	02/13/99	OP4941	EM46
Run #2							

ABN Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
298-02-2	Phorate	ND	5.2	ug/l	
23950-58-5	Pronamide	ND	5.2	ug/l	
129-00-0	Pyrene	ND	5.2	ug/l	
110-86-1	Pyridine	ND	5.2	ug/l	
106-50-3	p-Phenylenediamine	ND	5.2	ug/l	
94-59-7	Safrole	ND	5.2	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	5.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.2	ug/l	
297-97-2	Thionazin	ND	5.2	ug/l	
95-53-4	o-Toluidine	ND	5.2	ug/l	
99-35-4	sym-Trinitrobenzene	ND	5.2	ug/l	
3689-24-5	Tetraethyl dithiopyrophosphate	ND	5.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		21-100%
4165-62-2	Phenol-d5	19%		10-94%
118-79-6	2,4,6-Tribromophenol	76%		10-123%
4165-60-0	Nitrobenzene-d5	83%		35-114%
321-60-8	2-Fluorobiphenyl	82%		43-116%
1718-51-0	Terphenyl-d14	89%		33-141%

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Report of Analysis

Page 1 of 1

Client Sample ID:	1834787	Date Sampled:	02/10/99
Lab Sample ID:	E45488-10	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8082		
Project:	Task MI015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD32128.D	1	02/17/99	KLS	02/15/99	OP4923	GCD1294
Run #2							

PCB List

CAS No.	Compound	Result	RDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	72%		30-150%
877-09-8	Tetrachloro-m-xylene	68%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%
2051-24-3	Decachlorobiphenyl	76%		30-150%

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**ACCUTEST.****Report of Analysis**

Page 1 of 1

Client Sample ID:	1834787	Date Sampled:	02/10/99
Lab Sample ID:	E45488-10	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

Metals Analysis

Analyte	Result	RDL	Units	DF	Prep	Analyzed By	Method
Arsenic	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Barium	<200	200	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Cadmium	<4.0	4.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Chromium	<10	10	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Lead	<3.0	3.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Mercury	<0.20	0.20	ug/l	1	02/19/99	02/19/99 PGC	EPA 245.1
Nickel	<40	40	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Selenium	<5.0	5.0	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7
Silver	<10	10	ug/l	1	02/22/99	03/01/99 ND	EPA 200.7
Zinc	<20	20	ug/l	1	02/22/99	02/24/99 RA	EPA 200.7



Report of Analysis

Page 1 of 1

Client Sample ID:	1834787	Date Sampled:	02/10/99
Lab Sample ID:	E45488-10	Date Received:	02/12/99
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Task MI015		

General Chemistry

Analyte	Result	RDL	Units	DF	Analyzed By	Method
Petroleum Hydrocarbons	0.66	0.50	mg/l	1	02/16/99 MKR	EPA 418.1



Report of Analysis

Page 1 of 2

Client Sample ID:	1834788	Date Sampled:	02/08/99
Lab Sample ID:	E45488-11	Date Received:	02/12/99
Matrix:	AQ - Trip Blank Soil	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	Task MI015		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O17049.D	1	02/19/99	GTT	n/a	n/a	VO1550

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
75-05-8	Acetonitrile	ND	100	ug/l	
107-02-8	Acrolein	ND	50	ug/l	
107-13-1	Acrylonitrile	ND	5.0	ug/l	
107-05-1	Allyl chloride	ND	5.0	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	4.0	ug/l	
74-83-9	Bromomethane	ND	5.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	4.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	5.0	ug/l	
74-87-3	Chloromethane	ND	5.0	ug/l	
126-99-8	Chloroprene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	120	ug/l	
97-63-2	Ethyl methacrylate	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
74-88-4	Iodomethane	ND	25	ug/l	
78-83-1	Isobutyl alcohol	ND	50	ug/l	
126-98-7	Methacrylonitrile	ND	10	ug/l	

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Report of Analysis

Page 2 of 2

Client Sample ID: 1834788
Lab Sample ID: E45488-11
Matrix: AQ - Trip Blank Soil
Method: SW846 8260B
Project: Task MI015

Date Sampled: 02/08/99
Date Received: 02/12/99
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O17049.D	1	02/19/99	GTT	n/a	n/a	VO1550
Run #2							

VOA Appendix IX List

CAS No.	Compound	Result	RDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	ug/l	
80-62-6	Methyl methacrylate	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
107-12-0	Propionitrile	ND	50	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
110-57-6	trans-1,4-Dichloro-2-Butene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	10	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromoformmethane	105%		86-118%
17060-07-0	1,2-Dichloroethane-D4	99%		76-114%
2037-26-5	Toluene-D8	104%		88-110%
460-00-4	4-Bromofluorobenzene	112%		86-115%

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CHAIN O' CUSTODY

FRESH PONDS CORPORATE VILLAGE, BUILDING B
2235 ROUTE 130, DAYTON, NJ 08810
732-329-0200 FAX: 732-329-3499/3480

ACCUTEST JOB #:

E45488

ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES		
Pratt & Whitney NAME: 900 Main St ADDRESS: East Hartford CT 06108 CITY: STATE: ZIP:			Willow Pond Ground Water Monitoring PROJECT NAME: East Hartford CT LOCATION: 68V0153 PROJECT NO. FAX #			VOCs SVOCs PCBs Organics Metals + Nit			DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID		
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION		COLLECTION			MATRIX	# OF BOTTLES	PRESERVATION	LAB USE ONLY		
			DATE	TIME	SAMPLED BY:				HCl	NaOH	HNO3
-1	1834778	2/10/99	11:25	JHM	GW	3		X	2	1	2T!
-2	1834779		11:50			5	X		3	1	1
-3	1834780		12:55			5	X		3	1	1
-4	1834781		13:20			6	X	X	3	1	2
-5	1834782		13:40			3	X	X		1	1
-6	1834783		14:00			4		X	2	1	1
-7	1834784		14:30			8	X	X	3	2	1
-8	1834785		14:30			8	X	X	3	2	1
-9	1834786		14:45			5	Y		3	1	1
-10	1834787		15:15			7	X	X	2	2	1
-11	*TB actually called 2-8-99 @ 1630 hrs JV 1834788 per email sp 1834788	16:45	VBC	✓	✓	2	X		2		7L1
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS					
<input checked="" type="checkbox"/> 21 DAYS STANDARD <input type="checkbox"/> 14 DAYS RUSH <input type="checkbox"/> 7 DAYS EMERGENCY <input type="checkbox"/> OTHER		APPROVED BY:	<input type="checkbox"/> NJ REDUCED <input checked="" type="checkbox"/> NJ Full <input type="checkbox"/> FULL CLP <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> OTHER (SPECIFY)			<input type="checkbox"/> COMMERCIAL "A" <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> STATE FORMS			Standard Pratt+Whitney Deliverable, Data Validation Package Requested Electronic Copy Requested TASK MI 015 All media's volumes labeled as being filtered, C.S. to confirm if media are to be reported as Total or Dissolved at Y/N?		
1 DAY TURNAROUND HARDCOPY, EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED											
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY											
RELINQUISHED BY SAMPLER: 1.	DATE TIME: 2/10/99 1730	RECEIVED BY: 1.	RELINQUISHED BY: 2.	DATE TIME: 2/10/99 1825	RECEIVED BY: 2.	RELINQUISHED BY: 3.	DATE TIME: 2/10/99 1830	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME: 2/10/99 1835	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME: 5.	RECEIVED BY: 5.	SEAL #: 6587, 6591, + 6597 and 11/act 4, Accutest Report 1.pd			PRESERVE WHERE APPLICABLE			ON ICE	TEMPERATURE 2.3 °C	